Council of the District of Columbia COMMITTEE ON TRANSPORATION & THE ENVIRONMENT MEMORANDUM

1350 Pennsylvania Avenue, NW, Washington, DC 20004

TO: Nyasha Smith, Secretary of the Council

FROM: Charles Allen, Chairperson, Committee on Transportation and the Environment

RE: Closing Hearing Record

DATE: June 6, 2023

Dear Ms. Smith,

Please find attached copies of the Hearing Notice, Agenda and Witness List, and testimony for the Committee on Transportation and the Environment's May 9, 2023, Joint Public Hearing with the Committee of the Whole and the Committee on Housing on B25-0119, the "Healthy Homes and Residential Electrification Amendment Act of 2023".

The following witnesses testified at the hearing or submitted written testimony to the Committee:

i. Public Witnesses

- 1. Mark Rodeffer, DC Sierra Club
- 2. Doug Siglin, DC Coordinator, Chesapeake Climate Action Network
- 3. Barbara Briggs, Friends Meeting of Washington's Committee on Peace and Social Concerns
- 4. Nikila Smith, Co-lead, Rhonda Whitaker Streets for Life DC, People for Fairness Coalition
- 5. Jamal Lewis, Director of Policy Partnerships & Equitable Electrification, Rewiring America
- 6. Jamoni Overby, DC Conservation Advocate
- 7. Matthias Paustian, Public Witness
- 8. Katie Laskey, Coordinator of Youth Ministry, Holy Trinity Church, Washington, D.C.
- 9. Jim Dougherty, Member, DC Climate Commission
- 10. Lara Levison, Public Witness
- 11. Michelle Hall, Public Witness
- 12. Charlene Pierce, Public Witness
- 13. Rev. Dr. Lewis Tait, Pastor, The Village Church

- 14. Doris Bishop, Public Witness
- 15. Rev. Andre Greene, Pastor, Varick Memorial AME Zion Church
- 16. Teresa Hobgood, Public Witness
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- 35. David Schwartzman, Chair, Political Policy & Action Committee, DC Statehood Green Party
- 36. Bill Mefford, Executive Director, The Festival Center
- 37. Debra Fox, Public Witness
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- 39. Samantha Schmitz, DC Field Events Coordinator, Moms Clean Air Force
- 40. Dean R. Brenner, Member, Ward 3 Democrats
- 41. Brittany Meyer, National Director Healthy Indoor Air Policy, Director of Advocacy, MD, VA, DE, DC, American Lung Association
- 42. Diana Schoder, Citizens' Climate Lobby DC

- 43. Linda VerNooy, Co-Leader DC Chapter and Labor Outreach Action Team, Citizens Climate Lobby
- 44. Janet Phoenix (read by Shanna Anderson), Assistant Research Professor, George Washington University, Milken Institute School of Public Health
- 45. Alexandra Wyatt, Policy Director and Legal Counsel, GRID Alternatives Mid-Atlantic
- 46. Selah Goodson Bell, Energy Justice Campaigner, Energy Justice Program, Center for Biological Diversity
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- 60. Gina Mendez, CEO, El Llamado del Bosque
- 61. Ian Mitchell, Director of Office for Social Concerns, The Roman Catholic Archdiocese of Washington
- 62. William Washburn, Chair, NAACP-DC Environmental and Climate Justice Committee
- 63. Jaqui Lieberman, Public Witness
- 64. Martin White, Public Witness
- 65. Max Broad, Executive Director, DC Voters for Animals
- 66. Vanessa Bertelli, Electrify DC

- 67. Ann Mead, MPH, RN, BSN, Public Witness
- 68. Amanda Reddy, National Center for Healthy Housing
- 69. Sarah Goodwin, Lincoln Westmoreland Housing
- 70. Carla Ellern, Tifereth Israel Congregation
- 71. Tene Lewis, Public Witness
- 72. Abel Amene, Public Witness
- 73. Daniel Michelson-Horowitz, Commissioner, ANC 1C01
- 74. Kate Bockover, Public Witness
- 75. Amy Hubbard, Public Witness
- 76. Morgan Buckley, Public Witness
- 77. Max Richman, Public Witness
- 78. Frank Canavan, Senior Manager, State Affairs, American Gas Association
- 79. John Keane, Manager, Government Relations, Association of Home Appliance Manufacturers
- 80. Jake Karaisz, Public Witness
- 81. Philip Downey, Public Witness
- 82. Coalition of District of Columbia Organizations
- 83. Gina Mendez, Public Witness
- 84. Portia Hurtt, DC Area Manager, State Government Relations and Public Policy, Washington Gas
- 85. Max Froomkin, Environmental Task Force, Student Action, Committee, Georgetown Day School
- 86. Navin Desai, Environmental Task Force, Student Action, Committee, Georgetown Day School
- 87. Audrey Leff and Grace Zia, Environmental Task Force, Student Action, Committee, Georgetown Day School

ii. Government Witnesses

- 1. Richard Jackson, Director, Department of Energy and Environment
- 2. Clarence Whitescarver, Chief Building Official, Department of Buildings

3.	Thor Nelson, Associate Vice President of Planning and Design, District of Columbia Housing Authority	

Council of the District of Columbia COMMITTEE ON TRANSPORTATION & THE ENVIRONMENT NOTICE OF PUBLIC HEARING

1350 Pennsylvania Avenue, N.W., Washington, D.C. 20004

COUNCILMEMBER CHARLES ALLEN, CHAIRPERSON COMMITTEE ON TRANSPORTATION & THE ENVIRONMENT

CHAIRMAN PHIL MENDELSON, CHAIRPERSON COMMITTEE OF THE WHOLE

AND

COUNCILMEMBER ROBERT C. WHITE, JR., CHAIRPERSON COMMITTEE ON HOUSING

ANNOUNCE A JOINT PUBLIC HEARING ON B25-0119, THE "HEALTHY HOMES AND RESIDENTIAL ELECTRIFICATION AMENDMENT ACT OF 2023"

Tuesday, May 9, 2023, 9:30 a.m. – 4 p.m. Virtual Hearing via Zoom To Watch Live:

https://dccouncil.us/council-videos/ http://video.oct.dc.gov/DCC/jw.html https://www.facebook.com/CMcharlesallen/

On Tuesday, May 9, 2023, Councilmember Charles Allen, Chairperson of the Committee on Transportation and the Environment, Chairman Phil Mendelson, Chairperson of the Committee of the Whole, and Councilmember Robert C. White, Jr., Chairperson of the Committee on Housing, will convene a joint public hearing to consider Bill 25-0119, the "Healthy Homes and Residential Electrification Amendment Act of 2023". The hearing will be conducted virtually via the Zoom platform from 9:30 a.m. to 4 p.m.

The stated purpose of B25-0119, the "Healthy Homes and Residential Electrification Amendment Act of 2023", is to create the Healthy Homes Program to install electric appliances for low- and moderate-income households. The bill would make the purchase and installation of electric appliances cost-free for households earning 80% AMI or less and reduced-cost for households earning 80-150% of AMI. The bill would also increase permit fees for installing appliances or other systems that combust fossil fuels on site and prohibit the District of Columbia Housing Authority from installing appliances or other systems that combust fossil fuels on site when making a conversion through the Rental Assistance Demonstration program.

The Committees invites the public to provide oral and written testimony. Public witnesses seeking to provide oral testimony at the Committees' hearing must thoroughly review the following instructions:

- Anyone wishing to provide oral testimony must email the Committee on Transportation and the Environment at cote@dccouncil.gov with their name, email address, telephone number, organizational affiliation, and title (if any), by the close of business on Friday, May 5, 2023. Please indicate that you are requesting to testify at this hearing in the subject line of your email.
- The Committees will approve witnesses' registrations based on the total time allotted for public testimony. The Committees will also determine the order of witnesses' testimony.
- Representatives of organizations will be allowed a maximum of five minutes for oral testimony, and individuals (and any subsequent representatives of the same organizations) will be allowed a maximum of three minutes. In order to accommodate additional public witnesses, the Committees may reduce witnesses' allotted time for testimony but will inform witnesses if it plans to do so.
- Witnesses are not permitted to yield their time to, or substitute their testimony for, the testimony of another individual or organization.
- If possible, witnesses should submit a copy of their testimony electronically in advance to cote@dccouncil.gov.
- Witnesses who anticipate needing language interpretation, including ASL interpretation, are requested to inform the Committee on Transportation and the Environment as soon as possible, but no later than five business days before the hearing. The Committees will make every effort to fulfill timely requests; however, requests received fewer than five business days before the hearing may not be fulfilled and alternatives may be offered.

For witnesses who are unable to testify at the hearing, written statements will be made part of the official record. Copies of written statements should be emailed to the Committee at cote@dccouncil.gov. Please indicate that you are submitting testimony for this hearing in the subject line of the e-mail. Tuesday, May 23, 2023.

Council of the District of Columbia COMMITTEE ON TRANSPORTATION & THE ENVIRONMENT AGENDA & WITNESS LIST

1350 Pennsylvania Avenue, N.W., Washington, D.C. 20004

COUNCILMEMBER CHARLES ALLEN, CHAIRPERSON COMMITTEE ON TRANSPORTATION & THE ENVIRONMENT

CHAIRMAN PHIL MENDELSON, CHAIRPERSON COMMITTEE OF THE WHOLE

AND

COUNCILMEMBER ROBERT C. WHITE, JR., CHAIRPERSON COMMITTEE ON HOUSING

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https://dccouncil.us/council-videos/ http://video.oct.dc.gov/DCC/jw.html https://www.facebook.com/CMcharlesallen

AGENDA AND WITNESS LIST

- I. CALL TO ORDER
- II. OPENING REMARKS
- III. PERFORMANCE OVERSIGHT HEARING
 - i. Public Witnesses

Panel 1

- 1. Mark Rodeffer, DC Sierra Club
- 2. Doug Siglin, DC Coordinator, Cheasapeake Climate Action Network

- 3. Barbara Briggs, Friends Meeting of Washington's Committee on Peace and Social Concerns
- 4. Nikila Smith, Co-lead, Rhonda Whitaker Streets for Life DC, People for Fairness Coalition
- Jamal Lewis, Director of Policy Partnerships & Equitable Electrification, Rewiring America
- 6. Jamoni Overby, DC Conservation Advocate
- 7. Matthias Paustian, Public Witness
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- 43. Brittany Meyer, National Director Healthy Indoor Air Policy, Director of Advocacy, MD, VA, DE, DC, American Lung Association
- 44. Diana Schoder, Citizens' Climate Lobby DC
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- 63. Gina Mendez, CEO, El Llamado del Bosque
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- 77. Matthew Gravatt, Public Witness
- 78. Andie Wyatt, Grid Alternatives
- 79. Tene Lewis, Public Witness

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- 2. Clarence Whitescarver, Chief Building Official, Department of Buildings

IV. ADJOURNMENT



Testimony of Mark Rodeffer Sierra Club DC Chapter DC Council Committee on Transportation and Environment, Committee on Housing, and Committee of the Whole Hearing on the Healthy Homes and Residential Electrification Act of 2023 (B25-0119) May 9, 2023

Thank you, Councilmembers Allen and White, and Chairman Mendelson for holding this hearing today on the Healthy Homes Act. My name is Mark Rodeffer and I'm testifying on behalf of the Sierra Club. We are the largest environmental advocacy organization in the nation, and we have about 3,000 dues-paying members in DC.

The Sierra Club very much appreciated working closely with you, Councilmember Allen, as well as Washington Interfaith Network, in developing this important legislation. We look forward to continuing to work with you to ensure the DC Council passes and funds the Healthy Homes Act. Attached to my testimony is a statement of support for the Healthy Homes Act signed by 29 DC-based organizations.

The Climate Threat from Gas

Methane gas that is piped from fracking sites into our homes and other buildings is responsible for about a quarter of DC's climate pollution. When burned, methane gas emits carbon dioxide, the most common climate pollutant. When leaked directly into the atmosphere, methane gas is more than 80 times more powerful as a climate pollutant than carbon dioxide. The District has pledged to end climate pollution by 2045, which will require that we phase out all fossil fuel use. Our electricity is moving toward 100% renewable generation, and we are making progress on reducing climate pollution from transportation through both electrification and mode shift. But when it comes to phasing out fossil fuel combustion in our homes, DC is woefully behind, and we have only 22 years to solve the problem.

The Public Health Threat from Gas

The fracked gas industry refers to its product as "clean-burning natural gas." It's the biggest climate lie since "clean coal." Like coal, gas isn't just polluting the climate, it's also polluting the air and our health. Indoor fossil fuel combustion fills our homes with

many of the same pollutants as auto exhaust, including nitrogen dioxide, carbon monoxide, particulate matter, even formaldehyde. You can't see or smell these fumes, but if your home uses a gas furnace or gas appliance, these pollutants are in your home. As we learned during the COVID-19 pandemic, dangerous particles in the air pose a greater threat indoors than outdoors. It makes no sense to pipe a dirty, dangerous fuel into our homes so we can burn it and breathe in the fumes.

The health consequences are severe. Research has shown that children who grow up in homes with gas appliances have a 42% increased risk of developing asthma.¹ Asthma rates in children living in homes with gas stoves are comparable to those of children living with cigarette smokers.² A study this year found that 13% of all childhood asthma cases are attributed directly to gas stoves.³

Indoor air pollution is particularly acute among DC's most vulnerable residents. A City Paper story headlined "Doctors Blame D.C.'s High Asthma Rates in Part on Poor Housing" reported that according to George Washington University, hospitalization rates for asthma are 10 times higher in Ward 8 than in wealthier parts of the District. Indoor fossil fuel combustion is not the only contributor to poor indoor air quality, though when combined with other hazards like mold or pest, its impacts are compounded, and its health effects are worse.

Asthma is not the only health hazard from indoor fossil fuel combustion. In an October 2022 letter to the U.S. Department of Energy, the American Lung Association and other public health organizations commented on the health impacts of gas furnaces, as follows:

"A significant amount of evidence on the detrimental health effects of exposure to air pollution shows that burned methane (natural) gas (mostly nitrogen dioxide) contributes to premature mortality and increased risk for illness including ischemic heart disease, stroke, COPD [chronic obstructive pulmonary disease], lung cancer, type 2 diabetes, and lower-respiratory infections. There is a growing body of evidence showing an association between long-term exposure to air

¹ Gas Stoves: Health and Air Quality Impacts and Solutions, RMI, 2020, https://rmi.org/insight/gas-stoves-pollution-health.

² Kicking the Gas Habit: How Gas is Harming our Health, Climate Council (Australia), May 2021, https://www.climatecouncil.org.au/resources/gas-habit-how-gas-harming-health.

³ Population Attributable Fraction of Gas Stoves and Childhood Asthma in the United States, International Journal of Environmental Research and Public Health, 2023, https://www.mdpi.com/1660-4601/20/1/75.

⁴ Doctors Blame D.C.'s High Asthma Rates in Part on Poor Housing, City Paper, May 22, 2019, https://washingtoncitypaper.com/article/180182/doctors-blame-dcs-high-asthma-rates-in-part-on-poor-housing/.

pollution and adverse birth outcomes. Short term exposure to high levels of air pollution can exacerbate asthma and cardiopulmonary symptoms."^{5,6}

The Economic Threat from Gas

Gas isn't just a climate and health threat. The economics of fossil fuels are increasingly not workable for DC families. Last year, gas prices increased more than 50 percent. But that's just the beginning. Washington Gas wants to charge DC residents \$4.5 billion dollars to replace its gas pipes across DC, a program it calls Project Pipes. The Public Service Commission has already allowed Washington Gas to charge DC ratepayers almost \$300 million for Project Pipes, and now Washington Gas is seeking another \$672 million. The DC Department of Energy and Environment estimates the total cost of Project Pipes is \$4.5 billion. It makes no sense to spend billions of dollars on fossil fuel infrastructure after DC has committed to transition off fossil fuels.

These multi-billion dollar costs are paid for by gas ratepayers. If a household transitions off the gas system, it's off the hook and will pay zero dollars of the \$4.5 billion Washington Gas is seeking. Low- and moderate-income DC households should be first in line to transition off the gas system so they are not forced to pay for Washington Gas's dirty energy profiteering. That's why the DC Council must pass – and fund – the Healthy Homes Act. If the bill is passed but not funded, DC's most vulnerable residents will be forced to continue breathing polluted indoor air and paying the skyrocketing costs of fossil fuels and dirty energy infrastructure.

Fortunately, the federal government will pay for a large portion of the Healthy Homes Act. The Inflation Reduction Act, which President Biden signed into law last year, provides rebates and tax credits for energy efficient electric systems, including an \$8,000 rebate for heat pumps and almost \$2,000 for heat pump water heaters. The federal rebates are generous, but they will not pay the full cost of electrifying a house, apartment, or condo. We cannot expect residents with low incomes to cover the remaining costs. If passed and funded, the Healthy Homes Act will ensure that low- and moderate-income DC residents who want to electrify their homes can do so at no cost.

⁵ Coalition comment letter on Increased Efficiency Standards for Non-Weatherized Gas Furnaces and Mobile Home Furnaces, October 2022,

https://www.lung.org/getmedia/ffe5d90c-6bd0-43fe-a4f9-48dba32427b6/climate-and-health-coalition-letter-on-doe-gas-furnace-rule-final.pdf.

⁶ "Gas Boilers and NOx: The Hidden Emitter," Energy & Climate Intelligence Unit, October 18, 2021, https://eciu.net/analysis/reports/2020/gas-boilers-and-nox-the-hidden-emitter

⁷ Average cost of wholesale U.S. natural gas in 2022 highest since 2008, U.S. Energy Information Administration, January 9, 2023, https://www.eia.gov/todayinenergy/detail.php?id=55119.

If the Council fails to pass and fund the Healthy Homes Act, higher income DC residents will still be able to use the generous federal incentives to electrify their homes and free themselves of the growing costs of staying on the gas system. But low-income DC residents would be stuck paying for the billions Project Pipes will cost. And, as higher income DC residents transition off gas, lower income residents' share of the \$4.5 billion cost will grow. To ensure an equitable transition off fossil fuels in DC, the Sierra Club asks the DC Council to pass and fund the Healthy Homes Act this year.

Thank you for the opportunity to testify.





Statement of Doug Siglin, DC Coordinator Chesapeake Climate Action Network and the CCAN Action Fund Joint DC Council committee hearing on the Healthy Homes and Residential Electrification Amendment Act May 9th, 2023

Chairmen Mendelson, Allen, and White and Councilmembers, I'm Doug Siglin. I'm speaking today on behalf of the Chesapeake Climate Action Network and the CCAN Action Fund, both based just outside the District in Takoma Park. We can proudly point to more than 20 years of effective climate policy advocacy in DC, Maryland, Virginia, and at the national level. For the past year and a half, we have been working towards full electrification of homes and buildings in this region under the banner of Electrify DC, Electrify Maryland, and county-level variants.

CCAN strongly supports the Healthy Homes and Residential Electrification Act and asks you to pass it in the upcoming weeks. We also strongly urge you to pass the increase in the Sustainable Energy Trust Fund proposed by the Transportation and Environment Committee in the Budget Support Act. The Committee's budget initiative -- perhaps slightly modified to make it more equitable – would provide a significant amount of initial funding for implementation.

Thanks to the DC Council's leadership, the District has the most aggressive carbon emissions reduction goals in the nation, with the statutory benchmarks being a 45% reduction from 2006 levels just two years from now, a 60% reduction seven years from now, a 70% reduction 12 years from now, an 85% reduction 17 years from now, and carbon neutrality in 22 years. Meeting these benchmarks is going take an extraordinary planning and effort on the part of the DC Government, particularly in weaning the homes and buildings sector off the use of methane gas as a fuel.

One thing that really jumps out in the District's most recent latest (2020) greenhouse gas emissions inventory is that emissions from methane gas transport and use in the District have only dropped 15.5% over the 14 year period from 2006 to 2020. This is nowhere close to the falling trendline that we absolutely must have to meet our statutory goals. We have 22 years to

get methane gas use in the District's buildings essentially to zero. You and your colleagues in the administration have to start very soon to bend that gas combustion curve sharply downward, reducing and eventually completely eliminating methane gas use in our homes and buildings.

The District's Building Energy Performance Standards and its net zero energy requirements for new commercial buildings after 2026 are powerful tools to address the emissions caused by burning methane gas in the commercial, government, and large multifamily residential sectors. This will help to bend the curve a good deal. However, there is little to nothing similar yet in place yet to address the single family or small building residential sectors. In this regard, the Healthy Homes Act is transformative legislation. If fully funded and well implemented, this bill would be a major step towards our statutory emissions reduction goals while achieving several other cobenefits. It would also have a significant impact on indoor and outdoor air quality; contribute to wealth accumulation and monthly savings for lower-income District residents; and, if implemented with appropriate labor standards, have major impact on well-paying trades careers for District residents. I know that you'll hear much more about that in this hearing.

I want to briefly share with you four ideas to modify and potentially improve the current draft of the bill. I would, of course, be glad to work through these ideas with any of you or your staffs as we move forward towards a final draft.

Make enrollment in Residential Aid Discount Program automatic for households participating in the program.

I know that some residents fear, based on past experience with electric resistance heating, or perhaps just the rumor mill, that their utility payments will go up if they switch to electric appliances. What they do not understand is modern appliance efficiencies. Electric heat pumps and heat pump water heaters are three times or more efficient than the maximum efficiency of a combustion appliance, and the difference is getting larger all the time. However, as a safeguard, it seems to me that DOEE should be directed to automatically enroll households in utility assistance programs when they participate in the retrofit program envisioned in the bill. Participants in utility assistance programs are also exempted from paying into the SETF. Although this would have the effect of diminishing the overall amount available in the SETF, it would maximize the value to the low-income household of switching to high-efficiency electric appliances.

Give DOEE more flexibility in implementing the program by broadening the definition of "residential electrification retrofit" and allowing DOEE to determine how to work with households above the 80% area median income threshold.

The current definition of "residential electrification retrofit" is "replacement of all appliances or other systems, such as an oven, water heater, or heating system, that combust fossil fuels on site with appliances or other systems that perform the same function and that are powered exclusively by electricity." I think that the program would be more effective if DOEE were to be given the option to address other relevant considerations when evaluating and retrofitting a household. We know from broad experience with electrification that a whole house approach that includes necessary electrical work and better sealing and insulating the house is often the best approach, but even if DOEE doesn't go that far, it should have the flexibility to address unforeseen circumstances that come up during an audit and could impede full energy savings.

Similarly, I would suggest that DOEE be allowed more flexibility to determine what to do with households whose income is above the low-income threshold set by the bill, rather than requiring that it pay at least 50% of the cost for households between 80% and 100% of the median family income. There are significant practical funding implications for this bill, and I would rather that available funds go to the lowest-income households. Middle income and higher income households are in a better position to take advantage of generous federal tax credits, particularly if DOEE can develop a robust education program that lets people know about them and how to take advantage.

Require DOEE to do more and better web-based electrification education for consumers

My suggestion to give DOEE more flexibility above does not mean that I think DOEE should do nothing for households over the 80% threshold. Effective marketing of energy efficient electric equipment and the incentives available to consumers is critical. The internet is a powerful source of information for nearly all District residents. Both to recruit participants to the core program and to encourage other residents that don't qualify to retrofit their homes with highly efficient electric appliances, DOEE should contract for a high-quality web-based marketing program. Although Efficiency Maine is a slightly different model (a quasi-government entity), its website EfficiencyMaine.com is a model of what can be done.

Include language directing DOEE to study the phaseout of gas combustion appliances

As I wrote at the beginning of this statement, to have any chance of meeting its carbon emissions reduction goals, the District Government must dramatically bend the curve towards the elimination of gas combustion in the District in the next 22 years. Methane gas combustion creates both indoor air quality concerns, which you will hear a lot about today, and outdoor air quality concerns related to ozone and fine particulate matter, which peaks in the winter months when District residents are using gas combustion heat. The DMV region remains out of compliance for ozone, and EPA is proposing to lower the national fine particulate matter threshold. Stationary nonpoint sources such as homes and buildings are a significant contributor. The legislation should be amended to require DOEE to study both the indoor and outdoor health effects of gas appliance combustion and to recommend to the Council further actions to eliminate gas appliances' contributions to compromised human health. The California Air Resources Board has recently taken this approach for the entire state by 2030, and the Bay Area Air Quality Management District has enacted similar regulations that will go into effect beginning in 2027. And as you surely read, New York state just approved legislation to prohibit the installation of new fossil fuel appliances in residential buildings three stories and fewer by 2030 and all buildings in the state by 2035.

Finally, I would just note that as much as we support this initiative, it is no substitute for a comprehensive, government-wide roadmap to reach our carbon reduction goals. The Council has taken some steps in that direction by requiring a government-wide plan, and I know that DOEE is working on an update to its Clean Energy DC plan. But neither of those involves the DC Public Service Commission, which has regulatory responsibility over the methane gas industry. So far, the PSC has resisted calls to develop such a forward-looking plan. I urge you to consider legislation in this Council period to bring the PSC fully into the creation of a reality-based, DC-wide plan to meet our statutory 2045 carbon neutral target.

I appreciate very much the opportunity to share our ideas with you today.

Testimony of Barbara H Briggs

Friends Meeting of Washington Committee on Peace & Social Concerns
DC Council Committee on Transportation and the Environment
Hearing on Healthy Homes and Residential Electrification Amendment Act
May 9, 2023

CM Allen, White, Frumen

Thank you for this opportunity to testify in support of the Healthy Homes Act.

My name is Barbara Briggs, I am testifying today on behalf of Friends Meeting of Washington's Committee on Peace and Social Concerns. Our Quaker Meeting is an active participant, and I serve as convener, of the growing Beyond Gas coalition of DC faith, community and climate organizations working to speed the District's transition off fossil fuels to cleaner, healthier electric energy sources for our homes and buildings.

Many DC residents will testify today about why speeding the District's transition off gas—and doing so in a way that provides extra help to DC's low and moderate income residents—is critical for the planet, for the District's long term economic well being, and for the health and safety of our residents.

A year ago, Friends Meeting of Washington joined Washington Interfaith Network, Interfaith Power and Light and Sierra Club in releasing the results of a citizen science investigation of methane leaks in DC. In a scant 2 dozen hours of investigation time, we discovered nearly 400 leaks of methane, a powerful greenhouse gas, in all eight wards of DC.

But we have been learning more and more about the health impact of burning gas in our homes, which presents an even more immediate and insidious danger to the lives of DC residents, particularly our children.

Over the last several months we have begun a new community science investigation, to allow us to see and measure the pollutants that gas stoves emit in our homes.

Methane burned produces fine particulates, nitrogen oxides, formaldehyde and other pollutants. We decided to focus on just one: nitrogen dioxide, a pulmonary irritant that aggravates asthma, bronchitis and COPD (chronic obstructive pulmonary disorder). According to one meta-study a child living in a home with even one gas appliance has a 41 percent greater likelihood of asthma. Another study, published last December tracked a full 12.7 percent of childhood asthma directly to gas stoves. Recent studies also indicate that in utero and early childhood exposure to NO2 can affect children's neurological development.

We are in the process of seeing for ourselves how much nitrogen dioxide DC families with gas stoves are exposed to. There is no standard for NO2 in indoor air, but EPA stipulates 100 Parts per billion as the maximum safe level for one hour of exposure outdoors. In many homes we are seeing NO2 levels climb to well over 100 PPB after just 15 to 30 minutes. In some kitchens,

including my own, we have measured nitrogen dioxide levels of 200 to 400 PPB in less than half an hour of running the oven and a couple of burners, like you might to cook a normal dinner. This often happens in small, enclosed kitchens—which makes me especially excited for the support the Healthy Homes Act will give to lower income families, enabling them to transition away from gas burning appliances. But we are also seeing high concentrations of NO2 in some large, newly renovated kitchens with big new gas ranges.

Gas stoves are significant because they are emitting pollutants right in the middle of our living space. However a recent study by UCLA's Department of Environmental Health Sciences found that emissions from gas appliances in LA also have a significant impact on outdoor air quality and that if all LA buildings were electrified this would result in 354 fewer deaths, and some \$3.5 billion in monetized health benefits one year.

We expect to complete our DC investigation by Fall with NO2 testing in at least 500 homes across all eight wards of the District. I would like to invite every member of DC Council and Council staff to join this study. My colleagues and I would be happy to come to test the NO2 levels in your kitchen and to talk with you about ways you can reduce your families' exposure.

The good news now is that we have a choice. Induction stoves work far better than gas. Highly efficient air or ground source heat pumps can heat our homes efficiently, reliably, economically –and they don't pollute our living spaces.

This is a change that will be important and beneficial for all of us. Let's lean into it. Low and moderate income families will need help to gain equitable access to cleaner healthier electric appliances for heating and cooking in their homes. I urge you to pass and fund the Healthy Homes Act, which is a very important step in the right direction.

Barbara Briggs FMW Committee on Peace & Social Concerns

Email: <u>BarbaraHBriggs@gmail.com</u>

Cell: 412-417-9384

Re: DC B25-0119, Healthy Homes and Residential Electrification Act of 2023

Dear Council Members:

Good morning Council Members. For the record, my name is Jamal Lewis, and I am representing an organization called Rewiring America. I would also like to acknowledge my role as an advisory board member for the DC Sustainable Energy Utility, representing low-income residents in the District. Thank you for the opportunity to provide testimony on the Healthy Homes and Residential Electrification Act of 2023 (B25-0119). This bill, if fully funded, will put DC on a path to ensure that its low- and moderate-income households, including those living in public housing, have the opportunity to access and benefit from the electrification transition.

Rewiring America is a national nonprofit organization, focused on electrification and working toward a future where communities are powered by clean, resilient, and efficient electric systems. These systems include heat pump heating and cooling systems, heat pump water heaters, heat pump clothes dryers, and induction stoves. Together with renewable energy such as rooftop solar and electric vehicles, these systems make up all-electric homes, which are healthier, more energy-efficient, and more affordable for 283 thousand DC households. All-electric buildings are also crucial for meeting the state's goal of cutting carbon pollution by at least 50% by 2032 and achieving carbon neutrality by 2050.

In DC, buildings contributed 75 percent of site energy use and 75 percent of GHG pollution; residential buildings accounted for 37 percent of the building sector's energy use and 32 percent of this sector's GHG pollution. We can both reduce energy usage and eliminate onsite greenhouse gas pollution by upgrading the appliances in our buildings to efficient electric versions, like heat pumps and heat pump water heaters. Given that appliances can have long useful lives of <u>up to 25 years</u>, DC must avoid installing any new fossil fuel appliances to have a chance at meeting our climate goals. The best time to replace a fossil fuel machine with an efficient electric version is when one of these machines, like a furnace, breaks. It is at this point of replacement where we need to electrify - starting today.

Electrification and efficient electric machines are already catching on in the District. According to DC's Computer Assisted Mass Appraisal (CAMA) property database, there are 1,547 residential properties and 22,289 condos that are currently utilizing heat pumps for heating and cooling in the District. Using the CAMA data to map the location of installations across the District, we found that heat pumps have been installed successfully in every Ward. The success of heat pump technology across neighborhoods and in homes and condos of all ages is evidence of their broad suitability for space heating in the District. However, according to the U.S. Census data, Wards three, four, five, seven and eight are all lagging behind in terms of the proportion of buildings utilizing electricity for heating - in these Wards less than half of the buildings are using

electricity. Most of the <u>District's Black</u>, <u>Hispanic</u>, and <u>Asian residents live in Wards 4, 5, 7, and 8</u> - the same wards with the highest unemployment rates and the lowest average incomes.

This Healthy Homes and Residential Electrification bill, if fully funded, will help to close the installation disparities of efficient electric and the resulting energy, health and economic inequalities that exist across the District. Every DC resident, including those living in public housing, deserves to have access to the benefits of electrification.

When consumers choose to electrify, particularly their homes, the benefits are immense. For example, DC residents would save an average of \$560 a year by electrifying their space and water heating. In addition, switching to an electric or induction stove can protect occupants from burning fossil gas, which is dangerous to our health. Children living in a home where gas is used for cooking have a 42% increased risk of having asthma¹ and even when a gas appliance is turned off, it can still leak and expose people to toxins like benzene, which cause cancer. Further, when we use clean, electric technologies, households are more insulated from price hikes. During the winter, households using inefficient fossil fuel appliances can see costs go up by over \$600. In homes with efficient electric heat pumps prices only increased by \$76—about one-tenth as much. This bill can unlock these benefits for low- and moderate-income DC households.

Finally, here are some common facts about electrification to help dispel any concerns you might have.

- DC's electric grid can handle the electrification of DC's buildings. Pepco concluded that DC's electric distribution system can support electrification as a pathway for achieving the state's decarbonization goals, which can involve the electrification of 95% of DC's buildings. Clean Energy DC, which is DC's climate plan, included a goal of reducing building energy consumption by 50%, which could be addressed by widespread adoption of efficient electric heating.
- Heat pumps can be used and are effective in cold climates. Heat pumps are two to three times more efficient than gas or electric resistance systems, and the newest models operate with 100 percent heating capacity at 5°F and good performance down to negative 13°F.
 - Cold climate heat pump technologies are tried and true: Norway is installing heat pumps at a faster rate than anywhere else in Europe and Maine is installing heat pumps faster than Norway! Households living in cold climate states like Maine, Massachusetts, Pennsylvania, and New York stand to save an average of \$753 a year on their utility bills from electrification.
- Heat pumps are no less reliable than fossil fuel space heating equipment during power outages. Most fossil fuel heating appliances rely on electronic subsystems, and so

¹ Lin et al. 2013. "Meta-analysis of the effects of indoor nitrogen dioxide and gas cooking on asthma and wheeze in children." International Journal of Epidemiology.

require electricity to work. <u>Gas furnaces</u> on the market today still need electricity to power their electronics and fans so they don't necessarily increase household resilience.

- Electrification therefore has the potential to increase household energy reliability as more homes install solar plus battery systems with "islanding" capability, and as more consumers purchase electric vehicles that can be used as backup energy systems. Homes with fossil fuel appliances will not be able to take advantage of the powerful electrical backup systems increasingly found in garages and driveways, including "vehicle-to-grid" (V2G) technologies available today that act as a mobile energy storage system and can keep homes warm and lit when power outages occur. Induction stoves, which are all-electric, are now available with built-in lithium-ion batteries.
- Electrification of buildings can increase equity in the District. Low-income residents living in all-electric buildings will save a lot of money on energy bills, with space heating energy demand projected to be 57 to 90 percent less than for typical buildings. Electrification will thus substantially reduce the overwhelming share of household income that many low-income households and people of color spend on energy. Additionally, the electrification of residential buildings will lower these residents' exposure to notoriously volatile fossil fuel prices, making energy bills not only more affordable but also more predictable
- All-electric buildings will have lower energy bills than fossil fuel buildings. Residential
 natural gas heating prices this winter were forecasted to be <u>34 percent higher than last</u>
 winter, while residential electric heating prices will be only <u>7 percent higher</u> (and that is
 due in large part to natural gas power generation). Electric appliances and systems
 reduce operating costs, too.
- Electrification of buildings will create jobs. Approximately 100,000 new jobs in energy-efficient construction and clean heating and cooling will be created through the electrification of the building sector, including electric new construction. As such, in-state engineering, building, and HVAC contractor companies and manufacturers will expand to serve the growing New York and regional markets. Clean energy jobs do not only include heat pump installation but also jobs throughout the entire supply chain, including equipment manufacturing and ancillary electrical work.

The Healthy Homes and Residential Electrification Act All-Electric Buildings Act is the **quickest** and easiest way to make an impact on reducing carbon pollution from the building sector. Buildings with heat pumps reduce carbon pollution no matter their generating source of energy and will be zero-emission as DC transitions to carbon-free energy by 2032. Even under conservative modeling assumptions, 98 percent of U.S. households would cut their carbon pollution by installing heat pumps today — no matter the fuel mix of their grid-generated electricity. Heat pumps are long-term, climate-appreciating investments: as the grid gets cleaner, the total pollution impact of any electric appliance will continue to decrease.

This is a critical moment for DC. Electrification is already here. With intentional policies like the Healthy Homes and Residential Electrification Act, we can make sure that all DC residents are able to access clean, electric energy while saving money and maximizing health.

Thank you,

Jamal Lewis
Director of State & Local Policy
Rewiring America

Thank you, my name is Matthias Paustian, I am a resident of Ward 4.

There are many reasons to pass and fund the healthy homes act. Health aspect, climate aspects, but also economic aspects.

Today I will focus on the economics of electrification and why we must center and prioritize low-income households in our transition away from burning fossil fuels in our buildings.

Electrification is the only economically viable way to stop carbon emissions from heating our homes and heating our water.

In newly constructed buildings, electrification is already the preferred and most cost effective way to heat and as a result most newly constructed buildings are electric.

Once we pair that with energy efficiency, it's clear that over time, the throughput of gas through our local gas distribution system is going to fall substantially. But the cost of maintaining a network of gas pipes throughout the city is basically fixed, it's independent of the volume of sales.

As a result, a smaller number of users and lower volume of sales needs to recover a nearly constant fixed revenue. That means that over time volumetric rates for the remaining users of gas will climb substantially. As a result, those households who can afford to electricity their homes, will find it economically beneficial to electrify their homes and leave the gas system. That lowers sales, raises the volumetric rate of the remaining users and the death spiral continues.

Unless we are strategic and proactive in beginning the transition away from gas and towards electrification with low income households, the dynamics I just described would leave low income households hooked and burdened with paying the legacy costs of stranded assets til the very end while everyone who has the financial resources has left the sinking ship. That is why I believe that the Healthy homes Act is such an important piece of legislation. We simply cannot afford to see the legacy costs of gas cost infrastructure fall on households who are least well positioned to shoulder those costs.

So how big is the burden for future ratepayers that the gas distribution system imposes on ratepayers?

You will have heard the figure that accelerated pipe replacement costs 672 million over the next 5 years in Project Pipes 3 and well over 4 perhaps 5 billion dollars in total. Those numbers are correct for capital costs, but actually understate the financial burden for ratepayers. Below I quote from initial comments of the DC government in Formal Case 1175, the application of Washington Gas for Phase 3 of Project Pipes:

"While revenue requirements are not presented in WGL's testimony, we note that total revenue requirement of capital assets is often double or triple the direct costs. This means the current application would likely impose from \$1.3 billion to \$2 billion in costs on ratepayers over time while remaining costs will impose at least \$8 to \$12 billion; the latter is a conservative (low) estimate as we only calculate future costs for two of the PROJECTpipes replacement programs."

What the DC government points out here is that ratepayer burden from continued investment in pipes is much higher than capital costs, because WGL is allowed a rate of return around 10 percent in its assets annually and because the assets are treated as if they have a long service life.

Compared to the undiscounted future ratepayer burden of 8 to 12 billion dollars from Project Pipes, electrification is a financial bargain!

This concludes my remarks.

Testimony of Lara Levison

<u>Bill 25-0119</u>, the "Healthy Homes and Residential Electrification Amendment Act of 2023 Joint Public Hearing:

Committee on Transportation & the Environment
Committee of the Whole
Committee on Housing
May 9, 2023

Thank you. My name is Lara Levison. I'm a resident of Ward 6, and I've lived in the District on Constitution Avenue continuously since 1985, as well as from 1966 to 1968. I'm the Energy Committee Chair for the DC Sierra Club, and I'm testifying as an individual to ask the DC Council to pass and fund the Healthy Homes Act (Bill 25-0119).

We need to get DC off methane gas, and it's essential to move low- and moderate-income residents off the gas system first, which is what this bill aims to do, because as the number of gas customers shrinks, the cost of the gas system to each customer will go up. Others are testifying eloquently today the many benefits of this bill, including supporting black homeownership and improving public health.

People like me can figure out how to pay for electrification of our homes. I'm privileged to benefit from a generational transfer of wealth, since my sister and I inherited a house and other assets from our parents. Eventually, I will fully electrify our house, and I'm fortunate to have the resources to do so, with the help of the federal tax credits and possibly a home equity loan. This bill will assist Washingtonians who have not benefited as I have due to systemic racism and other hurdles.

One of the sticking points for electrification is the attachment that many people have for cooking with gas, so I want to tell you about my induction range. Years ago, I fell for the gas industry's propaganda that the best way to cook is with gas, and I replaced our electric stove with a gas stove.

When I learned a couple years ago about the harmful indoor air pollution coming from our gas stove, I wondered if the fumes might be contributing to my boyfriend's migraine headaches. His home office is right above the kitchen. So, I bought an induction range for about 1500 dollars. I was a little sad that I had to give away some of our old pans. Pots and pans have to contain magnetic iron or steel to work on an induction range. That's because the induction range uses electromagnetism to turn the cooking pan itself into a cooker. The cooktop doesn't heat up to cook the food—the pan itself heats up to cook the food.

I love our induction range. No more sitting around waiting for a pot of water or soup to boil. The speed is amazing. The control of the temperature is fast and accurate. The stove is very safe because it's the pot that gets hot, not the burner or the stove, and there aren't any knobs to accidentally turn on gas. It's super easy to clean. It's highly energy efficient. I don't know whether there's a connection, but my boyfriend is having fewer migraine headaches.

Everyone should be able to have an electric range in their kitchen. If you can't buy a full-sized induction cooktop, but you have a little money to spend, you can purchase a portable induction cooktop to use on your kitchen counter for under \$100. If you have a conventional electric range, keep it—it's better for your health and for the environment and climate than a gas range.

I hope the Healthy Homes Act will enable many Washingtonians to shift to clean, safe, and efficient electric appliances for cooking, heating our water, and heating and cooling our homes. Thank you.

Testimony of Teresa Hobgood Hearing on the Healthy Homes and Residential Electrification Amendment Act before the

Committee on Transportation & The Environment
Committee of the Whole
Committee on Housing
Council of the District of Columbia
Tuesday, May 9, 2023

Thank you members of the Council for the opportunity to testify regarding the Healthy Homes and Residential Electrification Amendment Act of 2023. My name is Teresa Hobgood. I am a member of the Church of the Epiphany in Ward 2 and the Washington Interfaith Network (WIN). WIN organizes to build power for affordable, healthy and green housing across all wards of the District.

The Healthy Homes Act deserves the Council's full support. First, the legislation takes into account important health factors. Children in homes with gas stoves had a 42 percent increased risk of asthma. We should be pushing back at every turn to inhale dangerous nitrogen dioxide fumes and other respiratory pollutants in our lungs. Cooking with gas is not the safest method for heating our food.

Second, the legislation takes into account the climate catastrophe. Climate change is real and we must do what we can to address its adverse impacts on our lives, jobs and our economy. Methane's climate risks are indisputable. Methane is a greenhouse gas over eighty times more potent than carbon dioxide. I have testified previously about WIN's strong support for the District's goal of achieving carbon neutrality by 2045. Legislation replacing any system running on fossil fuels is a positive step forward. The Gas Company's \$4.5 billion PROJECT*pipes* proposal makes a mockery of the District's climate goals. As one report notes, the \$4.5 billion price tag could provide thousands of dollars of electrification upgrades for each household using gas in the District. A vision of building gas pipelines for the future is no vision at all. It leaves fewer and fewer customers with no alternative to inhaling indoor dirty air.

Third, the bill addresses an economic injustice. As District residents shift from fossil fuels to electrification, fewer households will be footing the Gas Company's bills. Many of these households will be unable to afford the Company's higher expenses. The bill not only provides resources for those most affected by indoor dirty air, it will result in cost savings for the District's Housing Authority.

For these reasons cited, a fully funded Healthy Homes bill should become law in the District. It is an important complement to energy efficient projects envisaged in the Deanwood and River Terrace neighborhoods and restoration of DOEE funding for sustainable energy grants. The Council is demonstrating needed attention to a climate catastrophe affecting us all. More can be done to benefit all communities in the District. WIN stands ready to work with the Council in achieving this end. Our faith demands no less. Thank you.

Testimony of Claudia McCormack, Secy/Treasurer of the Potomac Gardens Senior Resident Council - May 9, 2023

Thank you CM Allen for introducing the Healthy Homes Act legislation, which includes public housing residents. This is such a worthwhile project, and I commend you and all those who support it. I am very impressed with this description of the bill:

The "Healthy Homes and Residential Electrification Amendment Act of 2023" takes on the urgent task to replace fossil fuel-burning appliances and systems, like water heaters, stoves, and heating systems with appliances that use electricity and do not create unhealthy air within the home while reducing each household's addition of carbon into the atmosphere.

The major problems in our building are maintenance and security issues. We recently presented a Work Order Report listing outstanding work orders to Director Brenda Donald. Our President, Kenneth Murphy took her on a tour of the building on March 3rd. But since she will be leaving that post soon, we don't know if we'll get any response to that building tour or not.

We kind of have to start all over again anyway. We have a new Housing Manager, Ms Shana Butler. We had a meeting with her a couple of weeks ago and the residents were very impressed with her. She had a lot of good ideas.

I'll tell Ms Butler that we're trying to arrange for a building tour with CM Allen and Mr Murphy. We can all get together and figure out a date and time for that tour later.

Thank you, CM Allen.

Merwyn De Mello May 8th, 2023 708 Rock Creek Church Road Washington, DC 20010

Merwyn De Mello, member, Washington Interfaith Network (WIN)
May 9th, 2023: Testimony to DC Council - hearing on Healthy Homes Act:

Thank-you for this opportunity to submit my testimony on the Healthy Homes Act. My name is Merwyn De Mello. I am resident in Ward 1, am a member of the Washington Interfaith Network (WIN), and a climate justice organizer.

In this role I have lived in and accompanied communities in several countries in the Global South, and in Washington DC. Having seen first-hand the harmful impact of climate change on communities through the extraction and promotion of the use of fossil fuels, I urge the DC Council to pass and fund the Healthy Homes Act.

In December 2022, I traveled on delegation to Honduras, where I visited communities living along the Guapinol River in North Honduras. The operation of corporate iron ore mining interests, who willingly kill to profit their extractive economic model that pollutes the water and deforests large swathes of land. I heard repeated horror accounts from land and water protectors, of community members when faced with loss of occupation, displacement, and the decimation of their livelihood, escape the cycle of violence, by taking the dangerous migration journey to the US.

Here in DC, I visit homes of minority-member communities who are dependent on cooking and heating through the use of gas appliances. I hear similar stories of pain and suffering as in Honduras, from mothers of their children struggling with asthma, and from senior citizens who instead of reaping in the twilight of their life the just rewards of life-long hard work, are instead beset with suffering from the deadly diseases like leukemia and multiple myeloma caused by gas emissions from the burning of fossil fuels. You are aware, as I am, that burning gas in homes is a climate pollutant, responsible for 23% of DC's climate pollution.

The pollution toll in Honduras and Washington DC is borne by people and by the climate. The conclusions of a scientific study by the Institute of Environmental Science and Technology of the Universitat Autònoma de Barcelona (ICTA-UAB), published in July 2022 in *The Lancet Planetary Health*, calls for the development of new climate mitigation scenarios that would achieve energy convergence between the Global North and the Global South, marginalized communities and the privileged.

As a climate justice organizer I believe that in addition to stopping climate pollution, we need to find solutions to mitigate the unavoidable effects of climate change that threaten our communities and natural systems. The passage and funding of the Healthy Homes Act is an opportunity for the DC Council to avert a public health crisis, to achieve energy convergence between the privileged and marginalized in District of Columbia and also for stepping boldly onto the global stage, to eradicate the energy privilege between the Global North and South.

Thank-you!

Good morning. My name is Julia Novey, and I live in Tenleytown.

I'm speaking today on behalf of Interfaith Power & Light, an organization through which congregations of many traditions are working together to respond to climate change.

I also speak as someone in my 20's, for whom it is not an academic question whether or not our city does our part to preserve a livable climate. Maybe older people take our world's habitability for granted, but those of us born above 350 parts per million understand that being able to live here is a sacred gift that is endangered by continuing to burn fossil fuels.

All year, Washington Gas has been tweeting historic photos in celebration of their 175th birthday.

As a young person raised in DC I can only ask: Seriously? This is not a birthday anyone should be celebrating!

It is an insult to all of us who hope to continue to live, breathe, and thrive here to continue to sell DC residents dangerous fossil fuels for a 176th year in a row, and send those fuels into their homes through leaking pipes. Washington Gas should be embarrassed and ashamed to be advertising **my great-grandparents' energy sources** to DC residents now that we understand the harms of gas-burning, and now that we have such compelling electric alternatives.

I'm calling on the Council to support the Healthy Homes Act as one step on the path to moving away from the dangerous combustion energy.

Some people call this gas "natural," but that word cannot conceal the fact that there simply is no scenario in which the District can meet our climate goals while so many of our buildings continue to burn methane gas.

Everywhere gas is, gas leaks. Last year, over a dozen congregations walked their neighborhoods with a methane detector, finding 389 leaks, across all 8 wards, 14 of which were at or over the methane concentration at which an explosion is possible.

Indoors, cooking over a gas-burning stove exposes everyone we live with to dangerous air pollution. Cooking our families dinner should not make the children in our homes more likely to need to use their inhalers that night.

Poisons also leak from gas furnaces and water heaters. Earlier this year, carbon monoxide from gas boilers forced Burroughs Elementary School to close for two days!

Real climate action for the District calls for us all to begin an equitable transition off gas entirely and a plan to fully electrify our city, starting with our most impacted neighbors through the Healthy Homes Act. This is about environmental justice, health justice, economic justice, and racial justice.

Speaking personally, I feel that the fact that our planet evolved to support human life is such a miracle – one that took millennia to unfold. I can only describe it as a sacrilege to continue lighting the miraculous and limited resources that support human life on fire. Real climate action must mean protecting the sacred blessings of our natural world, not burning them.

I have yet to celebrate my own 30th birthday, and I want to celebrate many birthdays, my own and those of people I love, here in the District in a stable and life-sustaining climate. Washington Gas continuing to operate through its second century endangers all of us, but particularly those in our community who cannot afford to get off gas. Safe and healthy air to breathe in our homes should not be a luxury good!

Joint DC Council Committee Hearing: Committee on Transportation and the Environment, Committee on Housing, and Committee of the Whole 9 May 2023

The Healthy Homes and Residential Electrification Amendment Act of 2023 Testimony of Anne deBuys, Public Witness

Good day, Chairman Allen, Councilmembers and Council Staff,

My name is Anne deBuys. I'm a Ward 3 resident and—as you can see—a senior. Thank you for the opportunity to testify today in strong support of the **Healthy Homes Act**.

I live in a two-room apartment with a gas stove and no exhaust vent to the outside, so I use my stove as little as possible, and my oven, never. I've learned that over 75% of the methane emitted from gas stoves escapes while the stove is turned off.¹ And that the benzene which is also escaping is a known carcinogen, linked to leukemia, multiple myeloma, and non-Hodgkin's lymphoma, and is cumulative in its harm to the body. ²

Since I'm retired and at home most of the time, I'm usually inhaling what's leaking from my stove, or, when cooking, the harmful gasses such as nitrogen dioxide and carbon monoxide that result. I'm pleased to be able to have my windows wide open on these beautiful spring days; in winter, of course, my apartment's indoor air quality drops.

I'm even more concerned about the health of my 18-month-old granddaughter, whose home contains a big, new gas range, installed when my son and daughter-in-law remodeled their kitchen a few years ago. My granddaughter is bright and precocious, and scientific evidence pointing to negative effects of indoor air pollution on childrens' neurological development alarms me. Moreover, research shows that asthma rates in children living in homes with gas stoves are comparable to those of children living with cigarette smokers. (I was my granddaughter's age at a time when most people didn't understand there is a connection between cigarette smoking and lung cancer.)

¹ Lebel, Eric D., et al., "Methane and NO*x* Emissions from Natural Gas Stoves, Cooktops, and Ovens in Residential Homes," Environmental Science & Technology, 27 January 2022 https://pubs.acs.org/doi/10.1021/acs.est.1c04707

² Michanowicz, Drew R., et al., "Home is Where the Pipeline Ends: Characterization of Volatile Organic Compounds Present in Natural Gas at the Point of the Residential End User," Environmental Science & Technology, 28 June 2022 https://pubs.acs.org/doi/full/10.1021/acs.est.1c08298

³ American Cancer Society, "Benzene and Cancer Risk," https://www.cancer.org/content/dam/CRC/PDF/Public/6646.00.pdf

I can hope that my granddaughter won't develop asthma, but the odds are much worse for a child living in a disadvantaged neighborhood, who is up to ten times more likely to go to the hospital with an asthma attack than a child from a wealthier area of DC.

Insofar as the District's ambitious climate targets and forward-thinking building codes provide a foundation for us to make changes for the sake of our health and our environment, the **Healthy Homes Act** is the first legislation that directly benefits DC residents *at household scale*—BEPS for families, by proposing whole-home retrofits and weatherization for individual residences.

This initiative puts laudable ideas into practice and could establish a national model of leadership in residential building decarbonization. Such an effort, already underway in Ithaca, New York, is informative.⁴

As you, Chairman Allen, have said, the **Healthy Homes Act** supports four interconnected conditions for equity: **environmental justice, racial justice, economic justice, and health justice**.

DC has its own particular, egregious wealth gap, and with the **Healthy Homes Act**, we now have the opportunity to invest in homes of residents who have systematically been denied economic prosperity and many of whom cannot afford the needed repairs to make their homes safer and healthier.

The legislation also benefits these same historically underserved residents through its support of DC-based small and minority-owned businesses, as well as an urgently needed DC-resident workforce training program in residential electrification retrofits and energy efficiency upgrades.

Wealthy residents, facing inevitably rising gas utility bills, will electrify their homes by choice, leaving lower-income homeowners and renters behind. The **Healthy Homes Act's** energy efficiency upgrades (including insulation, air leak sealing, and more efficient appliances) will reduce energy use, lowering energy bills. At the same time, the **Healthy Homes Act** eliminates gas-burning appliances, protecting disadvantaged residents from inevitable gas delivery price increases.

For FY24, the Council faces its toughest budget decisions in many years. The **Healthy Homes Act** offers a wise financial choice: the chance to leverage local dollars while

⁴ Beardsley, E., "The building decarbonization big idea: BlocPower in Ithaca," US Green Building Council, 22 July 2022 https://www.usgbc.org/articles/building-decarb-big-idea-blocpower-program-ithaca

making full use of once-in-a-lifetime IRA (Inflation Reduction Act) funds to meet the needs of low-income families of color. We absolutely cannot afford to leave these IRA funds underutilized. For example, the 25C tax credit under the IRA has been expanded to allow homeowners to take credits for both insulation improvements and qualifying heat pump upgrades in the same year.⁵ While it is necessary to wait for more specific guidance from the Department of Energy (USDOE) regarding application of these funds, the remarkable opportunity to deploy them for the well-being of DC residents is evident.

In looking for a means to fund the **Healthy Homes Act**, the Council must proactively "think outside the [budget] box." Personally, I favor generating revenue by radically curtailing the wasteful and vastly expensive gas infrastructure replacement program, and virtually eliminating the PIPES surcharge-in exchange for a very slight, non-regressive increase in the Sustainable Energy Trust Fund fee (exempting all low-income customers from the increase).

DC residents should not have to bear the exorbitant price of the gas utility's Project Pipes, and strategic and necessary limits must be set on gas infrastructure replacement as we move toward electrification. I am grateful that Chairman Allen understands well the negative impact of gas infrastructure legacy costs on DC residents, particularly on low-income residents.

In conclusion, I call upon the Council to pass the Healthy Homes Act and to find a sustained, dedicated funding source by which to implement this significant legislation.

Thank you for your consideration of my statement.

Respectfully submitted, Anne deBuys Ward 3

https://www.utilitydive.com/news/insulation-electrification-energy-department/649643/

⁵ Walton, R., "Insulation vital to electrification effort but 'DOE completely ignoring' new tax credits: manufacturers," Utility Dive, 8 May 2023

Testimony of Jean Stewart Hearing Before the Committee on Transportation and the Environment on the Healthy Homes Act May 9, 2023

My name is Jean Stewart, and I am a 53-year resident of Ward 1. I'm a volunteer with the DC Chapter of the Sierra Club, and the Washington Interfaith Network (WIN). I'm testifying, first, because of concerns for my own and my neighbors' health. My rental apartment is in a building fueled by methane gas. I have neighbors who are retired like me, as well as several young families with children. Our gas stoves are not vented, so we are fully exposed to the indoor air pollution coming from burning methane gas from our stoves, as well as our gas-fueled heating and hot water systems. The pollution includes nitrogen dioxide, carbon monoxide, particulate matter, and even formaldehyde. It is a special health hazard for our children, who research shows have a 42% increased risk for developing asthma from burning gas. The health risks for me and my older neighbors include cardiopulmonary diseases and exacerbation of any pre-existing conditions they may have like COPD. New research shows that pipes and valves in gas appliances leak even when not in use: unburned ga contains, besides methane, noxious substances including benzene, a carcinogen linked to leukemia, multiple myeloma, and non-Hodgkin lymphoma.

My second concern is that fracked gas is also hazardous to more than indoor air. Many of us in DC participated with WIN and the Sierra Club in an outdoor leak detection project, mapping gas leaks across most of our wards. In my community of Adams Morgan in Ward 1, the results showed how leaky gas is: our biggest leak was right in front of the Harris Teeter market; another large leak was in front of St. Augustine's Catholic Church. But the answer is not the 4.4 billion dollars the gas utility wants to spend for a new network of pipelines. I am personally concerned about the increasing rates from this project that would quickly become very burdensome for people on fixed incomes like me, and even more so for DC's lower income residents. This money should instead be directed to enacting and funding the Healthy Homes Act: transitioning to clean energy from electricity saves money, improves indoor air quality, reduces outdoor air pollution, and avoids the risks of fire and explosion from leaking methane.

So-called "natural" gas is not the fuel of the future, but of the past. Heavy financial investment in methane gas is wasteful, leaving the city with stranded assets as residents and businesses move more and more to clean, efficient, and cheaper electricity. Enacting and funding the Healthy Homes Act will be a major step toward better health, and toward lowering our utility bills, as the costs of renewable sources of energy continue to decline.

I am also very concerned over the impacts on our city of a fossil fuel-accelerated climate crisis: infrastructure damage from floods, health and life costs from increasing heat waves, and damages from more powerful storms knocking our trees down onto homes, cars, and sometimes people. The Healthy Homes Act will be a big step toward

our city meeting its carbon reduction goals by lowering our output of methane, a much more powerful greenhouse gas than carbon dioxide.

Thank you for the opportunity to testify in favor of passing and funding the Healthy Homes Act.

Thank you Chairman Mendelson, Chairman Allen, Chairman White, and all of the members and staff of the Committees here today. More than four years ago I had the opportunity to provide testimony to the Council in support of the nation-leading Clean Energy DC Omnibus Amendment Act of 2018 while on parental leave with my second son. Coincidentally I am once again on parental leave with our third child, Juliana, as I provide testimony now. This is in part due to the DC paid family leave program you passed and funded, so thank you for that as well!

I am here today to ask you to pass and fund the Healthy Homes and Residential Electrification Act of 2023. We live in Petworth, which has one of the highest rates of gas leaks in the District. I've walked my kids to school past active gas leaks that weren't fixed for months. My friends were evacuated from their home in the middle of the night because of gas leaking from a neighbor's house. Our neighborhood was a case study for a recent report filed by the District government before the Public Service Commission on the cost savings of a triage and transition approach to moving off the gas system to clean electricity. Yet as we speak the Commission is considering authorizing an out-of-state company to charge DC residents hundreds of millions of dollars for unnecessary, expensive, dangerous gas infrastructure. The consumer advocate for our neighbors to the North in Maryland have calculated the cost of continuing such a business as usual approach — a potential ten-fold increase in gas costs for those who remain on the outdated gas system by 2050. We have to change course immediately to ensure a prosperous economy and affordable housing, and to lead the Nation again on climate protection.

That transition must start with those who are already struggling to keep their lights on and stay in their homes – and that is exactly what this bill does. My family has the privilege to afford the investments needed for a healthier, safer, all-electric home, but not everyone does. There are nearly 60,000 households under 80% of our Area Median Income burning fossil fuels for heat in the District today, paying an average of 7% of their income for energy. This bill would help half of those homes transition and lower those costs and live healthier, safer lives. This bill needs to pass, but it should also go further. It should ensure comprehensive retrofits: health and safety repairs, improved energy efficiency, electrification, and solar. It should be funded to reach all of those nearly 60,000 households. And it should require the Public Service Commission to help target retrofits to avoid the proposed costly investments in replacing gas pipes.

This Council has led the country on these issues, including last year with the Clean Energy DC Building Code Amendment Act. It is now time to take the next step: improve and pass the Healthy Homes and Residential Electrification Act. Thank you!

¹ download (dcpsc.org)

² download (dcpsc.org)

³ DCPSC E-Docket System

⁴ Climate Gas Financial press release 11162022 newest1.pdf (maryland.gov)

⁵ <u>LEAD Tool</u> | <u>Department of Energy</u>

⁶ the flipside report - targeted electrification for gas transition.pdf (buildingdecarb.org)

The Committee on Transportation & the Environment, The Committee of the Whole, and The Committee on Housing will hold a Joint Public Hearing on the following Legislation: Bill 25-0119, the "Healthy Homes and Residential Electrification Amendment Act of 2023, Tuesday, May 09, 2023 09:30 am

I am David Schwartzman representing the DC Statehood Green Party. We enthusiastically support passage of the Healthy Homes and Residential Electrification bill, another outstanding contribution from Councilmember Allen who made a critically important break from the past neglect of working class residents in leading passage of his legislation in 2021 which hiked the taxes on wealthy residents with revenue targeted to raise the DC EITC. Just as the Free Metro legislation, which has unfortunately been delayed in its implementation, this bill connects economic and environmental/heath justice, in this case by its facilitation of the phase out of natural gas consumption by helping lower-income DC residents to replace their existing methanegas appliances with cleaner, safer, more climate-friendly electric appliances. This bill also requires electrification for renovations at DC Housing properties and create a permitting fee for new gas appliances.

The Healthy Homes Act would: expedite the District's vital transition to a zero-carbon economy, noting that natural gas has an even bigger greenhouse gas footprint than coal because of leakage of the potent greenhouse gas methane to the atmosphere(1); address the health risks from indoor air pollution posed by gas ranges and ovens; reduce the ever-growing threat of gas-fueled fires and explosions in the housing stock; and protect lower-income people from inevitable gas delivery price increases.

As a Sierra Club fact sheet documents, the health risks from indoor air pollution are very significant, especially its link to childhood asthma (2). "The Environmental Protection Agency (EPA) warns that "studies of human exposure to air pollutants indicate that indoor levels of pollutants may be two to five times — and occasionally more than 100 times — higher than outdoor levels." (3). Further, there is evidence that natural gas used in homes itself contains hazardous chemicals. "When gas leaks occur, even small amounts of hazardous air pollutants could impact indoor air quality because natural gas is used by appliances in close proximity to people." (4).

Like other bills and existing programs, in particular ERAP, funding for excluded workers, and many other essential programs which the Mayor's austerity budget cuts degrading the quality of life of our community, especially of our working class and low-income residents, the DC Council should now make a priority the generation of needed funding from a progressive taxation approach, for example by a surtax on DC millionaires, the big corporate sector and high priced homes, collecting fines from developers who violated the provisions of the HPTF, as well as cancelling funding for tax abatements for big developers building mainly luxury/market rate housing.

David Schwartzman, Chair, DC Statehood Green Party's Political Policy and Action Committee; Our party's representative to the Fair Budget Coalition and SC member, member of Green Neighbors DC., ONE DC, Empower DC, Metro DC Democratic Socialists of America, Professor Emeritus, Howard University, dschwartzman@gmail.com, 202-829-9063

Footnotes

- (1) Howarth RW (2020) Methane emissions from fossil fuels: exploring recent changes in greenhouse-gas reporting requirements for the State of New York. J Integr Environ Sci 17: 69–81.
- (2) Gas: A Major Source of Indoor Air Pollution, https://www.sierraclub.org/sites/default/files/sce-authors/u6902/Gas%20appliances%20indoor%20air%20pollution.pdf
- (3) Gas stoves can generate unsafe levels of indoor air pollution, https://www.vox.com/energy-and-environment/2020/5/7/21247602/gas-stove-cooking-indoor-air-pollution-health-risks
- (4) Natural Gas Used in Homes Contains Hazardous Air Pollutants, https://www.hsph.harvard.edu/c-change/news/natural-gas-used-in-homes/

Health Homes Act testimony

Hi, my name is Michelle Harburg and I live in Ward 1. I call on the DC Council to pass and fund the Healthy Homes Act.

I recently learned that despite evidence that gas stoves can harm our health by leaking pollutants such as nitrogen dioxide, there are still no meaningful regulations in place to protect our health and safety from the harmful effects of gas stoves.

As a mother of two young children ages 2 and 5 with a gas stove in our home, I became concerned that I was unwittingly risking harm to their health each time I cooked on our gas stove, which is frequently. Suddenly that annoying smell of gas when I turned on the stove wasn't just a nuisance, it could also be a threat to my kids' health.

Both of my children are mouth breathers and constantly sound like they have a cold due to upper respiratory issues. I began to wonder, what if part of the cause of their breathing issues was our gas stove harming our indoor air quality? Fortunately, we had the resources to purchase a portable electric induction stovetop, which we are now exclusively using to cook our food. We will no longer use the gas stove.

However, I know that many families don't have the means to electrify their homes and/or may not even be aware that burning gas indoors can harm their health.

Gas appliances fill our homes with many of the same pollutants as car exhaust, including carbon monoxide, particulate matter, and formaldehyde. Any parent would be alarmed to learn that children in homes with gas appliances have a 42% increased risk of developing asthma. Asthma rates in children living in homes with gas stoves are comparable to those of children living with cigarette smokers, with 12% of all childhood asthma cases attributed directly to gas stoves.

Even though we now use an induction cooktop, gas is still a threat because leaky pipes and valves in gas appliances can emit methane and benzene in homes even when the appliance is off. Benzene is a known carcinogen linked to leukemia, multiple myeloma, and non-Hodgkin lymphoma. After learning about these risks, we are also going to do our best to completely eliminate gas from other appliances in our home and electrify it as much as feasible.

It gives me much hope that the DC Council is considering the Healthy Home and Residential Electrification Amendment Act to help 30,000 families take control of their health, and their children's health, by enabling them to avoid the potential lifelong negative health effects of gas in the home.

Eliminating indoor air pollutants from gas appliances will help DC families avoid future doctor visits and hospital admissions, as well as improve public health outcomes. Thank you.

Healthy Homes Act

DC Council Hearing May 9, 2023

Hi, my name is Samantha Schmitz and I live in Ward 1. I'm also the DC Field Events Coordinator for Moms Clean Air Force. Moms Clean Air Force is a community of over one million parents and caregivers nationwide and over 3,700 in DC alone. Our mission is to protect children from air pollution and climate change while fighting for justice in every breath. The DC Council has an opportunity to do just that by passing the Healthy Homes Act and supporting 30,000 low and middle-income homes in their transition to electrification.

Gas appliances fill our homes with many toxic pollutants like nitrogen dioxide, carbon monoxide, particulate matter, and even formaldehyde which cause a wide range of respiratory problems and other dire health implications. Recently the 2023 State of the Air Report reported that over 75,000 DC residents suffer from asthma, 12,000 of which are children. And as someone that suffers from asthma myself, I feel strongly that the Healthy Homes Act is an important step to cleaning up both our indoor and outdoor air quality in DC in addition to cutting climate pollution, improving public health, and creating jobs.

Transitioning away from gas appliances is imperative to our transition to a just and equitable future as children that grow up in homes with gas appliances have a 42% increased risk of developing asthma. In fact, hearing this statistic has made me question whether my own asthma diagnosis was due to the exposure I had to gas appliances throughout my own childhood.

After learning more about the harmful health effects of gas appliances this past fall, I chose to get the emissions from my gas stove tested. Unfortunately, that testing confirmed what I already suspected: there are high levels of harmful emissions coming from my gas stove that linger in my home long after I'm done cooking.

Being a renter like so many others in DC, I felt there was very little I could do to improve the air quality in my own home besides using my stove as little as possible, since I don't have the ability to electrify my appliances myself. For many other renters and low to middle-income homeowners in DC, the Healthy Homes Act would provide the necessary support to electrify their homes while also supporting our entire DC community by cutting climate-harming emissions.

The public health, children's health, and environmental justice implications of the proposed Healthy Homes Act are vast but this is just a first step in our city's electrification journey. Please continue to develop legislation that promotes the equitable transition of our community away from harmful fossil fuels and take immediate action by supporting the Healthy Homes Act today. Thank you for your time.



May 9, 2023 Oral Testimony Healthy Homes and Residential Electrification Amendment Act Support

Hello, my name is Brittany Meyer and I've have lived in Washington DC since for 17 years and currently reside in Ward 1. I'm also here representing the American Lung Association, which is the oldest voluntary public health association in the United States, on behalf of the more than 34 million Americans living with lung diseases, including more than 88,000 adults living in DC with chronic lung disease and more than 12,000 children with asthma. The Lung Association is the leading organization working to save lives by improving lung health and preventing lung disease through research, education and advocacy. We will be submitting written testimony, so I will keep my comments brief.

We support the Healthy Homes and Residential Electrification Amendment Act, which would save residents money and enable the city to lower greenhouse gas emissions and move towards a more sustainable climate friendly future. D.C. Council Bill 25-0119 will establish a program to remove and replace fossil fuel appliances and equipment and replace them with efficient electric systems such as heat pumps and induction stoves at low to no cost to residents. By promoting energy-efficient and healthy homes, this legislation can help reduce the burden of asthma, allergies, and other respiratory illnesses that are exacerbated by poor indoor air quality. It can also help reduce the burden of energy costs on low-income households and improve the quality of life for all residents.

The American Lung Association recently completed a comprehensive literature review of the health and climate impacts of the use of combustion-based appliances within the home. We reviewed nearly 71,000 articles on the subject and found that appliances that burn fuel within the home give off hazardous emissions including carbon monoxide, nitrogen oxides, benzene and particulate matter, often directly into the living space. Emissions from combustion-based appliances are harmful to lung health. Exposure to pollution caused by burning methane or propane gas indoors increases asthma symptoms and lung infections, lowers immune system response and increases overall infections in vulnerable populations.

Here in Washington DC, methane gas is responsible for about 23% of DC's greenhouse emissions. Tackling these emissions will therefore make significant movement towards a 100% renewable based city by 2032. I own a 600 square foot basement condo in Adam's Morgan that uses gas to cook food and heat water. Thanks to the pandemic, I now work a few feet from both appliances and since learning about the health harms that they cause the most vulnerable

among us, I often think about how I'm going to make the change to an electric water heater and an induction stove as soon as I can. Enabling at least 30,000 other residents to do the same will make an environmental and health difference for those least able to control their surroundings.

We want to note, however, the very long timeline. Giving nearly 20 years to roll out the program to the full intended number of residents will unnecessarily delay the transition away from combustion in the home that we need to happen now. To the extent its feasible to speed up this process, we encourage you to move faster than proposed in the bill. Second, as many low-income residents rent from higher income homeowners, please consider the average income of the person living in the home when distributing the funds. A landlord who is outside of the income bracket might be disinclined to protect their resident at their own cost. Allowing some subsidies for these rentals may ensure many folks aren't left behind.

Overall, this important legislation will help improve the health and well-being of our communities by promoting the use of clean and renewable energy sources, reducing harmful emissions, and creating healthier living environments. By investing in home electrification, we can reduce our dependence on fossil fuels and help fight climate change, while also improving indoor air quality and reducing energy costs for residents. We look forward to speedy enactment of this legislation, and we urge the Mayor and Council to include funding for these activities in the FY24 budget as soon as possible.

Sincerely,

Brittany Meyer 202-550-5700 Brittany.meyer@lung.org



Healthy Homes and Residential Electrification Amendment Act B25-0119
Committee on Transportation & the Environment
Committee on Housing
Committee of the Whole
Support
May 23, 2023

Chairman Mendelson, Chairperson Allen, Chairperson White and Members of the Committees:

On behalf of the American Lung Association, thank you for the opportunity to provide comments in support of B25-0119 known as the *Healthy Homes and Residential Electrification Amendment Act.*¹

The American Lung Association is the oldest voluntary public health association in the United States, representing more than 34 million Americans living with lung diseases, including more than 88,000 adults living in DC with chronic lung disease and more than 12,000 children with asthma.² The Lung Association is the leading organization working to save lives by improving lung health and preventing lung disease through research, education and advocacy.

The American Lung Associations supports the Healthy Homes and Residential Electrification Amendment Act, which would save residents money and enable the city to lower greenhouse gas emissions and move towards a more sustainable climate friendly future. The World Health Organization estimates that household air pollution accounts for an estimated 4.3 million premature deaths annually and 110 million disability-adjusted life years lost.³ The bill as drafted will establish a voluntary program to replace fossil fuel appliances and equipment with efficient electric systems such as heat pumps and induction stoves at low to no cost to residents. By promoting energy-efficient and healthy homes, this legislation can help reduce the burden of asthma, allergies, and other respiratory illnesses that are exacerbated by poor indoor air quality. It can also help reduce the burden of energy costs on low-income households and improve the quality of life for all residents.

Appliances that burn fuel within the home give off hazardous emissions including carbon monoxide, nitrogen oxides, benzene and particulate matter, often directly into the living

¹ Washington DC Council Bill, Healthy Homes and Residential Electrification Amendment Act. Available at: https://legiscan.com/DC/text/B25-0119/2023

² American Lung Association, Trends in Lung Disease. Available at: https://www.lung.org/research/trends-in-lung-disease/prevalence-incidence-lung-disease

³ World Health Organization. World Health Organization: Air Pollution. https://www.who.int/health-topics/air-pollution#tab=tab_1.

space.⁴ Emissions from combustion-based appliances are harmful to lung health. Exposure to pollution caused by burning methane (so called "natural" gas) or propane gas indoors increases asthma symptoms and lung infections, lowers immune system response and increases overall infections in vulnerable populations.⁵ Replacing a gas-powered stove with an electric one has been shown to substantially reduce nitrogen dioxide levels across the house, potentially protecting the health of residents.⁶

Here in Washington DC, methane sold by the local utility accounts for 23% of the district's total greenhouse gas emissions.⁷ Tackling these emissions will therefore make significant movement towards a 100% renewable based energy? city by 2032.

There are two items of concern in this otherwise positive proposal. First, we are concerned that giving nearly 20 years to roll out the program to the full intended number of residents will delay the transition to electrification in the home. We urge you to accelerate the implementation. Second, as many low-income residents rent from higher income homeowners, please consider the average income of the person living in the home when distributing the funds. This will help incentivize landlords to participate in the program and allow renters to benefit. Ensuing low-income residents who rent are not left behind.

Overall, the proposal will help improve the health and well-being of our communities by promoting the use of clean and renewable energy sources, reducing harmful emissions, and creating healthier living environments. By investing in home electrification, we can reduce our dependence on fossil fuels and help fight climate change, while also improving indoor air quality and reducing energy costs for residents. We look forward to speedy enactment of this legislation, and we urge the Mayor and Council to include funding for these activities in the FY24 budget as soon as possible.

Sincerely.

Brittany Meyer National Policy Director, Healthy Indoor Air American Lung Association Aleks Casper
Director of Advocacy
American Lung Association

aleks Casper

⁴ Zhang, Q., Gangupomu, R. H., Ramirez, D., & Zhu, Y. (2010). Measurement of ultrafine particles and other air pollutants emitted by cooking activities. Int. J. Environ. Res. Public Health, 7(4), 1744-1759.

⁵ Lee, K. K., Bing, R., Kiang, J., Bashir, S., Spath, N., Stelzle, D., . . . Shah, A. S. V. (2020). Adverse health effects associated with household air pollution: a systematic review, meta-analysis, and burden estimation study. Lancet Glob Health, 8(11), e1427-e1434.

⁶ Paulin LM, Diette GB, Scott M, McCormack MC, Matsui EC, Curtin-Brosnan J, Williams DL, Kidd-Taylor A, Shea M, Breysse PN, Hansel NN. Home interventions are effective at decreasing indoor nitrogen dioxide concentrations. Indoor Air. 2014 Aug;24(4):416-24.

⁷ District of Columbia Department of Energy & Environment. Greenhouse Gas Inventories. Available at: https://doee.dc.gov/service/greenhouse-gas-inventories



The Health Harms of Fuel-Burning Home Appliances

What is residential combustion?

Residential combustion refers to burning fuel inside of your home. Chances are, this applies to you — two thirds of U.S. households burn fuel in their homes. This means burning methane (so-called "natural" gas), wood, propane, heating oil or other fuel to heat your home and water, dry your clothes and cook your food.

Common home appliances that may burn fuel include:



What's the alternative? Electric appliances. Electric stoves, furnaces, water heaters and dryers don't burn fuel inside the home.

How does residential combustion contribute to air pollution?

Burning wood, natural gas, oil and other fuels inside of homes produces emissions that are harmful to human health and the environment. Some types of appliances, including gas stoves, release their emissions directly into the home. Other appliances, such as gas furnaces and water heaters, release their emissions outside, where they contribute to outdoor air pollution and climate change.

Indoor levels of pollutants can be two to five times — and sometimes more than 100 times — higher than outdoor levels. Most people spend 90 percent of their time indoors. Policies and practices that reduce indoor air pollutants, including from residential combustion, are critical for protecting health.



How does air pollution from residential combustion harm health?

Some pollutants that can result from residential fuel-burning include:

- Carbon monoxide, a dangerous gas that when inhaled can interfere with blood's ability to carry oxygen from the lungs to the rest of the body
- Nitrogen oxides, a respiratory irritant that causes airway inflammation, coughing, wheezing and increased asthma attacks
- Particulate matter, also called soot, a mixture of microscopic solids and liquids that affects multiple body systems and can increase the risk of premature death
- Air toxics, including ammonia, formaldehyde, polycyclic aromatic hydrocarbons and volatile organic compounds, that can cause cancer, birth defects and other serious health harms

Outdoor exposure to air pollutants such as particulate matter, ozone, nitrogen oxides, carbon monoxide and air toxics contributes to premature mortality and increased risk of illness in children and adults, including asthma attacks, heart disease and stroke, COPD, lung cancer, type 2 diabetes, premature birth and respiratory infection.

Breathing air pollution is unhealthy for anyone, but many people are at increased risk, including children, people living with lung or heart diseases, individuals who are pregnant, older people, people of color, people in low wealth communities, and people in rural communities.



Spotlight: Woodstoves and fireplaces

Burning wood in the home can greatly increase indoor levels of carbon monoxide, nitrogen oxides and air toxics. Wood stoves and fireplaces also release large amounts of deadly particulate matter. Woodburning contributes to unhealthy levels of outdoor pollution, too.



Spotlight: Gas stoves

Gas kitchen appliances can emit substantial amounts of carbon monoxide and nitrogen oxides, plus some particulate matter and polycyclic aromatic hydrocarbons.

A research review from the American Lung Association found that indoor exposure to pollutants from cooking on a gas stove can worsen asthma symptoms and reduce lung function in children.

How can you help protect yourself and your family from residential combustion?

If you burn fuel in your home, there are some immediate steps you can take to reduce your risk from exposure to harmful pollutants:

- Make sure any and all fuel-burning appliances in your home are in proper working order.
- · Install carbon monoxide monitors.
- Whenever you cook on a gas stove, always use ventilation either a range hood that vents to the outside or an open window or both.
- For homes that rely on wood burning for heat or cooking, an air cleaning device that uses HEPA filtration can provide some protection from the soot and smoke.

There are additional steps people can take to reduce pollution from indoor combustion:

- Reduce or eliminate unnecessary wood burning in your home.
- If your circumstances allow, you can replace gas appliances with electric appliances.
- If you own your home, you can take advantage of incentives programs available from utilities and governments to purchase safer and cleaner heating systems, water heaters, clothes dryers, and stoves.
- Public and private entities, including schools, employers and building owners and managers, can assess
 the impact of combustion pollutants on indoor air quality in their facilities and take steps to reduce or
 eliminate them.

Learn more at Lung.org/residential-combustion

TESTIMONY BEFORE THE COMMITTEE ON TRANSPORTATION AND THE ENVIRONMENT

AND THE COMMITTEE OF THE WHOLE

Janet A. Phoenix, MD, MPH, MS

Assistant Research Professor

Milken Institute School of Public Health

George Washington University

Thanks to Chairman Allen and, Council Chairperson Mendelson and members of the Committees. I am testifying today in support of the proposed legislation, the Healthy Homes and Residential Electrification Amendment Act of 2023 on behalf of the Campaign to End Lead Exposure and Asthma.

In principle this legislation is valuable in that it moves the District of Columbia away from fossil fuels and towards a more sustainable energy infrastructure. I would encourage the Council, however, to consider a more aggressive timeline for implementation. The final deadline of December 31, 2035 is a long way off. Half a generation of young children who are living in homes with gas stoves will continue to be exposed to airborne pollutants associated with asthma exacerbations and other health conditions between now and 2035. That seems unacceptable to me. The District of Columbia has a high prevalence of asthma. Areas of the city where low-income people live and where gas stoves are common, also have high rates of cardiovascular disease and diabetes, health outcomes associated with inhaling airborne pollutants. This would seem to require a need for more urgent actions than the current replacement timetable reflects.

In reviewing the agency responsibilities, I see that the DC Department of Energy and Environment is tasked with training a workforce to carry out the electrification retrofits. As is the case with other environmental workforces, in addition to training, a set of standards for how the work is carried out are needed, especially as some of this work will be carried out in low-income households where many more vulnerable residents with existing health conditions reside. These standards for how the work should be carried out to minimize harm to residents in homes may need to be developed as regulations are created.

I applaud the leadership the Council has shown in prioritizing low-income households. The bill defines low income, however, as a percentage of the Area Median Income or AMI. I strongly suggest using an alternative metric to define low-income households for the District of Columba. Many programs administered by DOEE use AMI and I know that some federal funds require its use in determining eligibility. In a city like DC, however, where significant gentrification continues to occur, the increasing presence of wealthier households has artificially inflated the AMI. The federal poverty limit for a household of 4 is \$30,000. By contrast 80% of the AMI would be \$113,840. This means households earning less than \$113,840 may qualify for these benefits that are described as being targeted to low income people because they are below the inflated medians. If the Council truly wants to ensure that funds are targeted primarily to low-income households, using a metric like the federal poverty limit would be much more useful in targeting those households most in need.

I was also pleased to see that the bill calls for a strategy for identifying low-income households to receive these retrofits. I encourage the Council to add language which specifies the partnerships with nonprofit housing entities to assist with identification of low-income households. Organizations like Yachad-DC, Rebuilding Together, Lydia's House, Housing Counseling Services, Manna and others work with low-income homeowners every day. They can assist DOEE with identification of these households and can assist families to navigate what can be a cumbersome application process with many obstacles for low income people attempting to successfully apply for needed funds.

Written Testimony for B25-0119

Submitter: Selah Goodson Bell, Center for Biological Diversity

Date: May 8th, 2023

Topic: Bill 25-0119, Healthy Homes and Residential Electrification Amendment Act of 2023

Good morning and thank you, Chairperson Allen and distinguished members of the committee. My name is Selah Goodson Bell and I'm a Ward 1 resident and Campaigner with the Center for Biological Diversity's Energy Justice Program.

Since moving to DC two years ago, I've been encouraged by the city's urgent desire to spearhead our country's clean energy transition. Yet, it pains me to admit that the racist ills of the fossil fueled economy are still alive and well in DC. Majority Black and Brown neighborhoods, like Brentwood and Ivy City, still face daily, ongoing threats of energy violence and environmental racism—like the proposed bus terminal on W street or the National Engineering Products chemical plant on Capitol Avenue—despite enduring these burdens for decades. The Council must do everything in its power to ensure that our clean energy policies rectify these injustices.

Our program at the Center works to advance an equitable, just, and anti-racist energy future, centering the concerns of disadvantaged communities. We advocate for ways to replace our planet-killing, fossil-fueled, private utility system with renewable, wildlife-friendly, and democratic distributed energy. Most importantly, we fight to concentrate the benefits and control of this system in communities that have been hit hardest by the fossil fueled energy economy.

As I'll briefly discuss this morning, the Center urges the Council to pass the Healthy Homes and Residential Electrification Act and implement a funding mechanism that avoids undue costs for the District's low-wealth ratepayers.

By replacing gas-powered appliances with electric and efficient alternatives in low- and moderate-income households, this bill will concentrate financial, health, and climate resiliency benefits in the homes that need them the most. The bill also recognizes the urgency of the climate crisis, as outlined by the recent United Nation Intergovernmental Panel on Climate Change's synthesis report which called for the rapid phasing out of fossil fuels to avoid the most catastrophic consequences to the planet.

The financial toll of fossil gas reliance is felt first and worst by DC's low-wealth households and households of color. Yet, Washington Gas Light Company (WGL) has failed to prioritize these communities in its distribution of record pandemic relief funds and continues to seek rate increases that would cost their customers almost \$5 billion. Consequently, these households

bear disproportionately more utility debt and spend a larger share of their monthly income on energy than their white and/or moderate to high income counterparts. In the last year alone, despite WGL's total arrearages actually decreasing by over 11%, low-income customers' arrearages have skyrocketed, increasing by over 214%. Similarly, in 2020, the American Council for an Energy Efficiency Economy found that the median energy burden of Black households in Washington, DC was 70% higher than that of non-Hispanic white households. Critically, the Healthy Homes Act can save DC families an average of \$378 a year and begin to remedy the ways that facially neutral policies and rate structures have exacerbated pre-existing race and class-based disparities.

The Act also seeks to improve the health outcomes of DC's working class, Black, and Latino communities, who are still reeling from the lingering effects of the pandemic. Indoor fossil gas appliances expose residents to pollutants like nitrogen dioxide, particulate matter, and even formaldehyde. Additionally, Leaky pipes and valves can release methane and benzene. Collectively, these emissions can cause asthma attacks, cancer, increased hospital admissions, and even death.

The extreme weather caused by the climate emergency is only exacerbating the above impacts, particularly because the city's historic and ongoing discriminatory planning practices —tied to the enduring legacy of racist redlining— have concentrated these communities in structurally deficient housing. These homes are costlier to keep cool and warm, less likely to protect inhabitants from the above indoor air pollution, and often located near polluting infrastructure like chemical plants, trash transfer stations, busy roadways etc. The result is a deadly mixture of cumulative burdens that make it harder for community members to live long, healthy, and prosperous lives. However, electrification retrofits not only mitigate the climate emergency by reducing greenhouse gas emissions, but they also protect homes from extreme temperature and skyrocketing utility bills with weatherization measures like insulation, duct sealing, and the installation of efficient appliances. This can be especially transformative for residents in neighborhoods like Ivy City, Brentwood, and Anacostia that, while also bearing the above stressors, can experience temperatures that are 8°F to 17°F hotter than neighborhoods with predominantly wealthy and white residents.

Finally, it is crucial that the Council funds the bill's Healthy Homes Program in a manner that does not disproportionately impact low-wealth ratepayers. Several of the District's exemplary clean energy programs, like Solar for All or the Sustainable Energy Trust, unfortunately rely on regressive, rate-based funding mechanisms that are unduly costly for low-wealth ratepayers. We therefore urge the Council to consider other options like taxing utility shareholder dividends and executive payouts or limiting bill surcharges to high-wealth ratepayers.

Testimony of Steve Chase Public Witness to DC Council Committee on Transportation and the Environment Hearing on Healthy Homes and Residential Electrification Amendment Act May 9, 2023

Thank you for the opportunity to testify in support of the Healthy Homes Act.

My name is Steve Chase. I am a resident of Ward 3 and a member of a local Quaker congregation affiliated with the Washington Interfaith Network.

Central to my religious faith is the call to love my neighbors and God's good earth. I am also called to do whatever I can to heal and repair the world. You can understand, then, why I fully support the Healthy Homes and Residential Electrification Amendment Act. It addresses all of these core faith commitments and it is a useful next step in building what Martin Luther King called the "Beloved Community."

None of my faith commitments are abstract to me. Years ago, when I was an environmental studies professor, I led a dozen graduate students to Louisiana to study environmental and public health issues. As part of this field study trip, we spent two weeks going up and down the 87-mile stretch of the Mississippi River between Baton Rouge and New Orleans where there are over 150 petrochemical plants sited along the river. We visited impacted communities, who call this area of Louisiana "Cancer Alley," and we talked to residents, community organizers, scientists, state and local officials, journalists, environmental lawyers, and petrochemical plant managers.

What we discovered is that Louisiana produces 25 percent of the United States' domestic production of petrochemicals, a massive source of wealth, and that Louisiana is the second poorest state in the Union. We also learned that it has the worst public health statistics of any state in the country. In addition, we learned that African Americans make up 35 percent of the state population, but make up 90 to 95 percent of the people living close to the polluting petrochemical plants along the river, and they suffer much higher rates of cancer and other diseases than the state average.

The ugly reality of all this harm was made most clear to us when our group was taken on a tour of Diamond, Louisiana, by Margie Richard. Ms. Richard was a former resident who had been a sixth-grade public school teacher in Diamond and became an award-winning community organizer after she found out the Exxon-Mobil plant in her town had bought out the homes of the entire White neighborhood in her town, but refused to buy the homes of the African Americans like her who lived closest to the plant.

Margie was already angry that a giant corporation was destroying the health of the citizens of her town-- an act that was perfectly legal under the corrupt, corporate-dominated, public policy regime in the State of Louisiana. But she was outraged when this same corporation was willing to help get her white neighbors get out of harm's way, but left behind her closest neighbors to suffer ongoing exposure to chemical contaminants day in and day out. She soon began to organize her community, built coalitions with national environmental and racial justice organizations, and campaigned for years before she got Exxon-Mobil to offer to buy out the remaining citizens of the community they had destroyed.

On the day we were with her, Margie took us to an abandoned playground in Diamond whose back fence was all that stood between the children she had taught and the Exxon-Mobil facility.

We could see the sign still standing that said, "Parents, Make Sure Your Children Are Safe!" We sat on the basketball court bleachers while Margie told my students about her hard-fought, but ultimately successful, battle to get a minimum standard justice for her neighbors and enable them to get out of harm's way. That made a huge impression on me and my students, but that afternoon at the playground, we also learned through our own experience a tiny bit of what Margie and her neighbors had faced for years. Within 15 minutes of being near the plant, most of the students had started coughing. After a half hour of listening to Margie telling her powerful story, half of my students had come down with serious headaches and one student had to go lay down in our van because of feeling dizzy and sick to her stomach. All that after just 30 minutes of exposure to Exxon-Mobil's polluting plant!

In DC, the harm of heating homes and cooking with fracked gas is more disbursed and at lower levels than the people faced in Diamond, Louisiana, but as you have heard over and over today, the harm is still real and serious. We also have a large corporation, in our case Washington Gas, that wants to keep making profits at the expense of our community's health and climate stability. Furthermore, we have a District government that could side with a polluting corporation, or side with its residents and its own stated climate and public health goals.

At the same time, we also have a historic opportunity, through unprecedented federal funding, to not let DC's poor and our residents of color be left behind during the necessary transition of getting DC off gas. We can make sure that they do not stop suffer unnecessary health and financial burdens during this transition.

Is the Healthy Homes Act all that is needed? Absolutely not! Is it a good next step? Absolutely!

Please stand up for your neighbors' health, and for climate justice, by passing and fully funding the Healthy Homes Act.

Thank you.

COMMITTEE ON TRANSPORTATION AND THE ENVIRONMENT

COMMITTEE OF THE WHOLE

COMMITTEE ON HOUSING

JOINT PUBLIC HEARING ON B25-0119, THE HEALTHY HOMES AND RESIDENTIAL ELECTRIFICATION AMENDMENT ACT OF 2023

MAY 9, 2023

TESTIMONY OF ANNE CAUMAN IN SUPPORT

My name is Anne Cauman. I have lived in the District of Columbia ("District" or "DC") for over 30 years, mainly in Ward 3.

I strongly support the Healthy Homes Act. I want the Council to both pass and fund it.

While this testimony is purely my own, I am a member of Temple Sinai, the Ward 3 Democratic Committee, and the Green Healthy Affordable Buildings group of Washington Interfaith Network (WIN). All three entities are extremely concerned about climate change and work to combat it. I want the Committee to be aware that on April 27, 2023, the Ward 3 Democratic Committee passed a resolution in support of the Healthy Homes Act and requesting that the Council fund it. I know that WIN also supports the Act and wants to see it funded.

I am very worried about climate change and passionate about fighting it. We own a plug-in hybrid (it would have been an EV if we had a place to regularly plug-in), and will be replacing our gas burning water heater soon with a hybrid electric one. Like many parents, I worry about the world we are leaving my son and other young people.

Given that buildings are responsible for more than 70% of the District's greenhouse gas emissions (with existing buildings a particular problem), we need to electrify and drastically improve energy efficiency in all buildings as quickly as possible.

As the District moves forward in fighting climate change, it is important that we do so equitably. The Healthy Homes Act does that.

Not only does it provide electrification retrofits and, where feasible, energy efficiency upgrades to low-income households at no cost and to moderate-income households on a sliding scale of payments, it trains District residents to do these retrofits, and it doesn't leave out public housing.

So many District residents are in need of jobs and good paying ones. The skills needed to make these retrofits will provide good paying jobs beyond this program. These will be very marketable skills.

We know the gas industry's response is that electrification hurts businesses and workers. But it doesn't; it creates jobs. It prioritizes our most vulnerable residents and it invests in people's homes, livelihoods, and health.

Retrofitted homes will be more energy efficient, comfortable, and healthier. While the dangers of gas stoves have been in the news recently, all gas appliances are dangerous – they emit methane and multiple other polluting, unhealthy substances.

I was thrilled to learn that the Transportation and Environment Committee just allocated \$2 million for a pilot project for energy efficiency upgrades, weatherization, and electrification for low-income households in Deanwood and River Terrace. Both WIN and the Ward 3 Democratic Committee support the pilot project.

Thank you for your consideration.

Anne Cauman 4405 38th Street, NW Ward 3 annecau@gmail.com

- My name is Trevor Dolan, and I work with Evergreen Action, a national climate action nonprofit.
- I'm speaking today in support of the Healthy Homes Act.
- Indoor air pollution is a public health crisis, and fossil fuel appliances gas stoves, boilers, heaters, and others are responsible.
- Fossil fuel appliances found in buildings **emit 425,000 tons of nitrogen oxides per year**, more than all of the nation's power plants combined. Nitrogen oxides contribute to smog and particulate matter causing a wide-range of health issues like asthma, lung cancer, heart disease, and even premature death.
 - Children in homes with gas appliances have a 42% increased risk of developing asthma — comparable to the risk of living in a home with cigarette smokers.
- That's because inside Americans' homes, appliances contribute to indoor pollution often
 exceeding the legal limits on outdoor pollution, and combustion from fossil-fuel
 appliances emit a wide range of toxic pollutants, including carbon monoxide, and
 carcinogens like benzene and formaldehyde. Research shows that even when gas
 appliances are turned off, they continue to leak these pollutants into our homes.
- This is a pressing justice issue.
 - Children who are Black or low-income are disproportionately impacted by these respiratory diseases, and
 - Black Americans are 55% more likely to die from causes related to pollution from fossil fuel burning appliances than white Americans.
- To be clear, these impacts also extend outside the home; nitrogen oxides contribute to
 the formation of local smog and fine particulate matter, causing billions of dollars of
 public health impacts across America and thousands of premature deaths each year;
 researchers have found that residential and commercial buildings emissions are now
 the leading cause of cross-state early deaths from air pollution.
- This is also a financial issue for working families.
 - Often, low-income communities are unable to afford building maintenance and improvements to mitigate this type of pollution, have poorly insulated homes, and less efficient appliances. As a result, low-income communities spend on average 13.9 percent of their household income—and as high as 30 percent—on energy costs, which is nearly three times more than what wealthier households pay.
- The same holds true for communities of color, who spend disproportionate shares of their income on energy costs. Electrification can address these undue burdens installing efficient, electrified appliances would save DC households an average of \$378 annually.
- The Healthy Homes Act can tackle all of these intersecting crises at once.
- By providing support for electrification and efficiency, the Act will directly reduce both indoor and outdoor air pollution.
- The Act's targeted support to low- and middle-income households will also reduce unjust energy burdens for tens of thousands of working families.

- We also know that the country is facing a critical workforce shortage we just don't have enough qualified installers, HVAC technicians, and other skilled workers to advance building electrification and efficiency.
 - The Healthy Homes Act's investments in DC-based small and minority-owned businesses will go a long way toward building the local expertise needed for this work.
- In closing, the Biden administration's Inflation Reduction Act was a historic step toward cleaner, safer, and healthier buildings nationwide.
- Now it's incumbent on cities and states to pick up the baton on build on that progress.
- The Healthy Homes Act is a shining example of local leadership on this pressing crisis, and I hope the measure passes without delay.
- Thank you for your time.

Testimony by Matthew Bevens, Public Witness DC Council Committee on Transportation and the Environment May 9, 2023

Hello, my name is Matt Bevens, and I have lived in Washington since 2003 and currently reside in Ward 6. Thank you for holding this hearing and for your leadership.

I'm here today to strongly encourage the Committee to pass and fund the Healthy Homes Act. Others here today have done an excellent job detailing the many reasons that we need this legislation: lower energy bills, protection from fossil fuel price swings, good paying electrician jobs, tackling one of our largest sources of emissions and protecting our health and safety indoors.

But I want to focus my time on the *urgency* of acting now as District. Not just in the race to prevent the most catastrophic outcomes of climate change and protect our health, but in the race to ensure that low- and moderate-income District residents receive their fair share of the federal benefits that are now on the table to make an equitable transition to an all-electric future.

Chairman Allen, as you noted this morning, last summer, Congress passed the Inflation Reduction Act, creating a new home electrification and appliance rebate program for low- and moderate-income households. These funds will be granted to state energy offices later this year, including DOEE. These federal rebates are substantial but they require us to take action now.

First, the overall amount for these rebates is finite: only \$4.5B over 10 years. Most importantly, the law rewards states that set up programs and demonstrate success, redistributing unused funds to those states by August 2024.

This essentially creates a national competition for these funds. And DC is currently way, way behind in the race for them. Just take a tour of the country, and you can see how many states have already been working to lower the costs of home retrofits for years.

In <u>Massachusetts</u>, <u>Rhode Island</u>, <u>Connecticut</u>, <u>Maine</u>, <u>New York</u>, <u>California</u>, <u>Colorado</u>, even <u>parts of Texas</u>, states, utilities and state green banks have built programs that lead to no-cost or low-cost home retrofits for low-income households. They've created zero-interest or low-interest financing programs. They've got their own rebates.

So why does this matter? It means that these states will quickly be able to turn these federal dollars into actual retrofit projects. They have whole ecosystems of contractors, support staff,

training programs and more that are already operating in these states. Building those businesses and partnerships takes time. Training and hiring the electricians and installers takes time. Convincing homeowners to make these changes is not a simple task. While the benefits are clear, homeowners and contractors alike need to be educated about the benefits electrification. and it takes time to turn that ship after a century of it pointing toward fossil fuels. The Healthy Homes Act starts to make this possible for DC.

So the time to act is now, if not yesterday. The Healthy Homes Act helps ensure that DC can equitably transition away from fossil fuels, helps DC catch up in an area of climate action where it currently lags, and it jumpstarts DC's electric future.

I urge the committee to pass and fund the The Healthy Homes Act without delay.





COMMITTEE ON TRANSPORTATION & THE ENVIRONMENT COMMITTEE ON HOUSING Joint public hearing DC city council

Dear Chairperson Charles Allen, Chairperson Robert White and Chairman Phil Mendelson,

Good afternoon. My name is Winston Yau, a Ward 2 resident since August of last year, and I am a volunteer representing WePowerDC at this testimony today. WePower is a public power campaign - we believe that a publicly-owned utility, directly accountable to the people it serves, is the only way to achieve energy democracy. I am testifying today to support the Healthy Homes Act, as it aligns with our goal to lower energy bills, redress energy injustices, and decarbonize our energy system. I want to dig a bit deeper into the benefits this Act can bring to working people of DC

The Health Homes Act will cut down on the energy burden of the working class and make their lives better. As a legislation that targets renters, this is a remarkable departure from many home electrification policies that prioritizes homeowners. Poorer households disproportionately suffer from the high costs of fossil fuel appliances and energy inefficient homes - research from the nonprofit American Council for an Energy Efficient Economy (ACORE) showed that poor households spend nearly four times as much on their utility bills as well-off ones. At the same time, they don't have the level of disposable income to seal their air leaks, insulate or weatherize their homes. Even if they wanted to, they could not, if they live in rental apartments. They are locked into this vicious cycle of energy poverty, betraying conventional anti-poor narratives that poor and working class folks cause their own misery. This Act holds the promise of remedying that double whammy by offering free replacements for gas-fired appliances and heating systems for 30,000 low- and middle-income DC households, protecting working people from rising costs of fossil fuels. In fact, DC households stand to save an average of almost \$400 per year on utility bills by switching to efficient electric heat pumps and water heaters. This will be a step in the right direction by the DC government to enact and fund this legislation to address the economic inequities in an unjust energy system.

Beyond making the lives of working people of DC easier, the Healthy Homes Act also makes their lives *healthier*. Gas-powered ovens, stoves, water heaters and other fossil appliances don't just take a cut out of our paychecks, but take a toll on our health too by releasing nitrogen dioxide, carbon monoxide, particulate matter, and even formaldehyde. These invisible particles directly hurt our lungs, especially among our most vulnerable: black and/or low-income children. Research from the think tank RMI shows 12% of all childhood asthma cases can be attributed directly to the use of gas stoves. The health savings from these avoided cases more than justify

the investments under this act. Passing this act means protecting people most exposed to the harms of burning dirty fossil gas in our homes and taking a step towards redressing environmental racism in DC.

Along with the immediate physical health and financial benefits to low-income residents, the Healthy Homes Act also represents a crucial step in weakening powerful fossil fuel utilities. Washington Gas seeks to spend nearly \$5 billion to maintain its aging fossil fuel infrastructure, in a desperate attempt to squeeze money out of this soon-to-be obsolete energy system. And guess who will be footing the bill? DC residents! Utilities like Washington Gas have no interest in guiding us toward a fossil free future; in fact their business model depends on that *not* happening. They are not our allies in this fight, and will fight to the bitter end to maintain the status quo—the DC government has to take action to undercut their power. Instead of wasting money on artificially drawing out the life of a poisonous energy system that goes against DC's climate goals, DC should invest in clean energy. By supporting low and moderate income residents in electrifying their homes, this bill provides a crucial boost in the fight against all-too-powerful utilities that are deliberately slowing the energy transition.

In 2020, buildings accounted for 71% of the District's greenhouse gas emissions. To meet the city's goal of becoming a net-zero city by 2045, we must act now to retrofit our buildings. Electrifying our homes and preventing potent greenhouse gasses from being pumped directly into our environment is a non-negotiable step. The Healthy Homes Act needs to pass so the District follows through on its commitment, empowers citizens to support the city's goals and participate in the global fight against climate change.

Hearing on the Healthy Homes Act DC Council Committee on Transportation and the Environment Testimony by Larry Martin May 9, 2023

My name is Larry Martin and I live in Ward 3. I've been working on environmental health issues since moving to the District in 1986 and am a volunteer with the Sierra Club. I support passage of the Healthy Homes Act.

I'm here today to thank Councilimenbers Nadeau, White, Gray, Frumin, Lewis-George, Pinto, and Parker, and you Chairman Allen for introducing the Healthy Homes Act, and for the opportunity to testify in support. The Healthy Homes Act is an important tool DC can employ to cut our greenhouse gas emissions in order to meet DC's climate commitment of carbon neutrality by 2045. We all are aware of the need for everyone to help reduce carbon dioxide emissions from fossil fuel and fight against a warming climate wherever and whenever we can. This is a challenge that no single person can achieve, and that can only be met collectively. We need to make cleaner energy available of all DC citizens, not only those who can afford to be early adopters – when I remodeled my home I swapped out the gas range for an induction and had a heatpump installed – its works for heating and cooling. The upfront cost wasn't trivial. The Healthy Homes Act will enable low and moderate-income DC households to replace their gasfired appliances and heating systems at no cost to them using federal funding from the Inflation Reduction Act, along with local funds. This is an important piece of making the shift to clean energy a partnership among all DC citizens. DC did this with Solar For All program and we can do it again with swapping out gas appliances. The Health Homes Act will help build a market and capacity for this work, that's going to make it less expensive for everyone, and contribute to a skilled local work force.

Homes that transition to clean energy high efficiency upgrades will have lower energy use and utility bills, but as importantly, improved indoor air quality. Gas appliances emit pollutants that contribute to chronic health conditions. Research has shown that children in homes with gas appliances have a 42% increased risk of developing asthma; with 12% of all childhood asthma cases attributed directly to gas stoves. Taking gas out of homes and preventing asthma is far preferable to treating what becomes a life-long chronic health condition.

The Council is surely aware of the current Project Pipes initiative to fund replacement of gas lines. Estimates put the cost of this program over the coming years at over \$4Billion. This project persists like a zombie even though the District's commitment to carbon neutrality should promote a strategy to trim back gas service lines – not replace them. The Healthy Homes Act is a step in the right direction. Much more needs to be done to repurpose these billions of dollars away from a dependence on gas, and instead invest in clean energy. DC residents should not be spending billions of dollars to prop up polluting energy infrastructure.

Please pass the Healthy Homes Act. Thank you.

Testimony for Healthy Homes Act, Bill B25-0119 Charles Belser, Ward 1

Thank you to members of the council for allowing me to testify in support of the Healthy Homes Act today. I'm a retired engineer living in Ward 1. My interest in this bill comes from personal health concerns and a lifetime of design work in the mass transit field, one of the largest and oldest green businesses. My work in designing renovations and new facilities covered 24 states and three foreign countries over 47 years.

The extreme weather events that have happened all over our world are a cry for help from the planet, and I'm listening. Locally, the fracked gas burned in homes and other buildings for heating and hot water accounts for 23% of DC's climate pollution.

My personal story does not include terrible hardships. Although recently I have finally recovered from a long bout with bronchitis and asthma flare up and have wondered if my gas appliances have exacerbated this problem. I have three grandchildren who live in ward 1 near me. My granddaughters remind me so much of my wife who died last year. So I'm doing double duty as a grandparent trying to protect the environment for the future generations.

As I've learned more about the effects of burning gas inside of homes, I have wondered if the gas stove in my house contributed to this affliction. I live alone, and don't cook all that much, but I'm very concerned about houses with children. Children who live in houses with gas stoves have a 42% higher likelihood of developing asthma over those who don't. Children who are Black or low-income are disproportionately impacted. Children in Ward 8 are ten times more likely to go to the hospital because of an asthma attack than children in wealthier areas of DC. Asthma rates in children living in homes with gas stoves are comparable to those of children living with cigarette smokers.

I desperately want the world to be safe and healthy for my grand kids and all children.

In preparing for this testimony, I recently learned about plans proposed by Washington Gas to do widespread replacement of underground gas piping. DC residents should not be burdened with spending billions of dollars to prop up declining dirty energy interests. DC should invest in transitioning to clean energy from electricity, which saves money, improves indoor air quality, and reduces climate pollution.

I firmly believe that individuals, towns, cities and countries all over the world need to be acting locally. New York State just passed a law banning natural gas and other fossil fuels in most new buildings, so there are other similar actions gaining traction around the country. Supporting and voting for this bill is an important local step to cut climate pollution, reduce indoor air pollution, and improve public health. I encourage all council members to support and vote to pass this bill.





Statement of Claire Douglass, CEO and co-founder of MANGO Time DC, CEO of New Fundamentals and Ward 4 Resident Joint DC Council committee hearing on the Healthy Homes and Residential Electrification Amendment Act May 9th, 2023

Dear DC City Council Members,

I was born and raised in DC. I took advantage of a number of progams this council has implemented like the DC in-state tuition grant program, which allowed me to attend the University of Colorodo before returning to DC to start my career. Years later, I started my family here in Ward 4 and am raising an energetic little girl who has asthma. We, like many homes in the district, have gas appliances. I am here today to urge you to pass and fund the Healthy Homes Act.

As you know, this legislation will retrofit 30,000 low- and middle-income DC residents' homes to address indoor pollution that has proven to be a public health threat, particularly to children. The impact of this pollution is estimated to contribute to over 12% of child asthma rates. Had I known the public health risk associated with gas stovew several years ago when we renovated our kitchen, I would have switched at that time. I want to take a moment to thank DC Attorney General Brian Swchawb for signing a letter asking the Consumer Product Safety Commission to warn people about the dangers surrounding gas stoves. Had I known, perhaps my 3-year old daughter might not have as many asthma flare ups. And, I wouldn't have to take time and money working parents do not have to start the process of getting these appliances, that are making us sick, out of my house.

By passing and funding this bill, you will support low-income families and single parents in our community, enabling them to have a healthy home and afford to get polluting appliances out of their homes and put more energy efficient ones in. By being more energy efficient, these families will save money on their monthly energy bills in perpetuity. This will have a direct impact on these families' lives, particularly those living paycheck to paycheck.

I also want to highlight that The Healthy Homes Act establishes a training program for DC-based small businesses, DC-based minority-owned businesses, and DC workers to perform residential electrification retrofits. As a local women-owned business owner, I understand what it takes to start a business here. We need more job training programs to create jobs for those of us that live here and not in MD and VA. As a local business owner, I want to support other DC businesses.





Most importantly, I urge you to front-load the funding this year and allocate at least \$100 million this year to get the program up and running as soon as possible. The sooner we start, the sooner the program will pay off.

Thank you for your time and attention to this matter.

Sincerely,

Claire Douglass

Testimony of Cara Spencer to the District of Columbia Council Committee on Transportation and the Environment in support of B25-0119, the Healthy Homes and Residential Electrification

Amendment Act of 2023

May 9, 2023

Good afternoon. My name is Cara Spencer, and I have lived in Ward 6 for the past 23 years where I have raised my two children. Thank you for holding this hearing and for the opportunity to testify about the Healthy Homes Act. There is literally no downside to this bill and I am calling on the DC Council to pass it.

As everyone here knows, we face a climate crisis. As the parent of two children aged 15 and 18, I am gravely concerned about how climate change will affect their futures and all of our futures. That said, I am also grateful to live in the District of Columbia where our local government and especially the Council of the District of Columbia has listened to constituents on this issue for many years and has passed legislation committing the District to carbon neutrality. This legislation is a model for what should be happening nationally, and many of our statutes and regulations have in fact already influenced other states and cities to take similar steps.

I want to emphasize three aspects of the Healthy Homes Act that are most significant to me personally. First, are the climate benefits. The Act will make at least 30,000 low to moderate income District households eligible to replace gas-fired appliances and heating systems in their homes with electric systems. The gas we burn in our homes is methane, which the EPA says is 28-34 times as powerful as carbon dioxide as a climate pollutant. To meet the District's statutory commitment to carbon neutrality by 2045, we must stop burning fossil fuels in our buildings and transition to efficient electric systems.

Second are the health benefits. Burning gas in our homes also fills our homes with dangerous and unhealthy pollutants such as nitrogen dioxide, carbon monoxide, particulate matter, and formaldehyde. Eliminating these pollutants from our homes will help to protect our children from asthma and improve public health.² The Healthy Homes Act also works to protect some of our most vulnerable residents including children by prohibiting the District of Columbia Housing Authority from installing gas-fired appliances and heating systems in rental conversions.

¹ United States Environmental Protection Agency, Global Methane Initiative, "Global Methane Emissions and Mitigation Opportunities" at 1 n.1, available at:

https://https://www.globalmethane.org/documents/gmi-mitigation-factsheet.pdf.

² W. Lin, B. Brunekreef, and U. Gehring, "Meta-analysis of the effects of indoor nitrogen dioxide and gas cooking on asthma and wheeze in children." Int'l J. of Epidemiology, Vol. 42: 6 (December 2013) pages 1724-1737 (concluding that meta-analysis of 41 studies that met inclusion criteria provided quantitative evidence that, in children, gas cooking increases the risk of asthma and indoor nitrogen dioxide increases the risk of current wheeze).

Third, are the financial benefits for District residents. The Healthy Homes Act uses federal funds to subsidize retrofits that will reduce energy and utility costs for lower to moderate income District residents. Moving forward with retrofits now will also protect these same residents from increases in gas prices that will inevitably come as the District transitions off fossil fuel infrastructure.

Thanks again for the opportunity to testify.



The Roman Catholic Archdiocese of Washington

Archdiocesan Pastoral Center: 5001 Eastern Avenue, Hyattsville, MD 20782-3447 Mailing Address: Post Office Box 29260, Washington, DC 20017-0260 (301) 853-4500 | adw.org

Joint Public Hearing of the Committee on Transportation and the Environment, the Committee of the Whole, and the Committee on Housing May 9, 2023

B25-119, the Healthy Homes and Residential Electrification Amendment Act of 2023

Statement of Ian Mitchell, Director of Office for Social Concerns The Roman Catholic Archdiocese of Washington

On behalf of the Office for Social Concerns of the Roman Catholic Archdiocese of Washington, in partnership with the D.C. Catholic Conference, I first would like to thank the Council for this opportunity to share a few thoughts on Bill 25-119, the Healthy Homes and Residential Electrification Amendment Act of 2023.

In his encyclical letter on caring for our common home, Pope Francis speaks of the need to approach the question from the perspective of an "integral ecology" (see <u>Laudato Si'</u>, 137-162). He reminds us how everything is interconnected and concern for the environment must be joined to the overall welfare of society, especially the most vulnerable (*Id.*, 91). "We have to realize that a true ecological approach always becomes a social approach," writes Pope Francis, "It must integrate questions of justice in debates on the environment, so as to hear both the cry of the earth and the cry of the poor" (*Id.*, 49).

Bound up as well in an integral ecology is the common good, which itself cannot be achieved, he recognizes, without concern for distributive justice (*Id.*, 157). Noting a lack of adequate agreements about the responsibility for paying the costs of energy transition, Pope Francis specifically warns against the "injustice [that can be] perpetrated under the guise of protecting the environment, [where] the poor end up paying the price" (*Id.*, 165, 170).

In short, Pope Francis urges communities to find solutions to the challenges of the *natural* environment in fair and just ways that improve the *human* environment, rather than simply making life harder for people. Meanwhile, this Council and the District government have likewise adopted policies that laws and public programs should be viewed through the lens of equity.

With these considerations in mind, as the regional and federal governments seem poised to require the phasing out the use of natural gas for appliances, including stoves, hot water heaters, furnaces and hybrid HVAC systems, B25-119 appears to be consistent with the important goal of not unduly placing the burden of climate solutions on the backs of those who can least afford it. Providing publicly-funded residential electrification retrofits at no or reduced costs to low- and moderate-income District households is a just and equitable step in the expected transition away from natural gas to full electrification.

In Laudato Si', Pope Francis also speaks of the contributions that religion can offer to these questions of protecting our common home, and to be sure, B25-119 is also supported by the Washington Interfaith Network, with whom the Archdiocese has long collaborated both through the assistance of the Catholic Campaign for Human Development and through membership of local Catholic parishes in the network. By this ongoing collaboration, we honor Pope Francis' reminder that "everything is interconnected, and that genuine care for our own lives and our relationships with nature is inseparable from fraternity, justice and faithfulness to others" (Id., 70).

Council of the District of Columbia Committee on Transportation and the Environment Agency

Tuesday, May 9, 2023

HEALTHY HOMES AND RESIDENTIAL ELECTRIFICATION AMENDMENT ACT OF 2023 DC NAACP TESTIMONY

Good morning, Committee Chair Allen, members of the Transportation and Environment Committee, fellow public witnesses, and members of the public. For the record, I am William Washburn, Chair of the Environmental and Climate Justice (ECJ) Committee of the NAACP Washington DC Chapter. I am here on behalf of DC NAACP and the ECJ Committee to recommend the enactment of B25-0119, Healthy Homes and Residential Electrification Amendment Act of 2023, including language that specifically targets benefits to the residents of privately-owned rental apartments and older homeowners on fixed or limited incomes.

Since its founding in 1909, the NAACP has been a leader in the fight for racial justice in the United States. The NAACP District Chapter has led that fight within the District of Columbia since 1913. The passage of the 1972 National Environmental Protection Act inspired the NAACP (including the DC NAACP) to broaden its advocacy for racial justice to include environmental justice. This is why the DC NAACP's efforts to promote racial and environmental justice in the District of Columbia and encourage the District government to take additional affirmative actions to secure environmental justice for this city's marginalized black and brown communities are so important.

Black and brown residents of Wards 5, 7, and 8 are much more likely to live in older homes and apartments with high levels of indoor air pollution than residents in other parts of the District. A number of these pollutants, such as methane from poorly maintained gas-fired appliances and HVAC systems, are asthma triggers. According to the DC Health Department's 2018 Health Equity Summary Report (page 30), the number of pediatric asthma-related emergency room visits per 10,000 population from the DC zip code with the highest asthma rate (20032/Bellevue) was nearly 27 times the number of pediatric asthma-related ER visits per 10,000 population from the DC zip code with one of the lowest asthma rates (20015/Kent-Palisades). The recent COVID-19 pandemic—which resulted in mandatory shelter-in-place orders for District residents

in 2020-2021—made matters worse for District residents suffering from, or prone to, asthma attacks.

The DC NAACP ECJ Committee commends Councilmember Charles Allen, Transportation and Environment Committee chair, and his co-sponsors of B25-0119 for their innovative legislative response to the indoor air quality challenges facing low and moderate-income DC residents. The proposed Council bill recognizes the environmental injustice encapsulated in the inability of the District's most environmentally vulnerable residents to afford the cost of replacing gas-powered appliances and HVAC systems in their homes with non-polluting, energy-efficient equivalents. We strongly support B25-0119's primary goal to establish a Healthy Homes Program to provide 30,000 low and middle-income DC households with electrification home retrofits at no cost to these households. We recommend, however, that the Council consider the inclusion of language in the bill that specifically prioritizes the electrification of residences occupied by the following two classes of households:

- 1. Low and Moderate-Income Renters of Privately Owned Housing Units: These households have no say in decisions to replace major appliances or HVAC systems in their units. An incentivized outreach program should be spelled out for the owners of these properties that incorporates input from the residents.
- 2. Older Homeowners on Limited/Fixed Incomes: A number of these homeowners may be interested in aging in place as they grow older rather than selling their homes and moving into assisted living housing or nursing homes. Limited income and poor health may prevent these homeowners from qualifying for loans to finance major home improvements such as residential electrification. A targeted outreach program for these homeowners should include an easily accessible application process that involves assistance from nonprofit housing counseling services and the DC Department of Housing and Community Development.

Again, thank you for this opportunity to testify before the Transportation and Environment Committee regarding B25-0119, Healthy Homes and Residential Electrification Amendment Act of 2023.

Respectfully Submitted,

William Washburn

Environmental & Climate Justice Chair

Wim Washburn

NAACP DC Branch



Joint DC Council Committee hearing on the Healthy Homes and Residential Electrification Amendment Act (Healthy Homes Act), May 9th, 2023 Testimony by Vanessa Bertelli, Director of Programs, Electrify DC

Members of the Council, thank you for listening to all of us today.

My name is Vanessa Bertelli and I am testifying in my capacity as the Director of Programs of Electrify DC. Electrify DC is a new organization that educates, organizes and supports local businesses, entrepreneurs and civil society so District residents may decarbonize their homes quickly, easily and affordably.

Electrify DC was born from the realization that even with a committed Mayor, a DC Council determined to pass laws like the Healthy Homes Act, and an Attorney General willing to protect consumers from the harms of fossil fuels, the speed of electrification largely depends on building implementation capacity. The businesses and entrepreneurs that will actually be doing the work of electrifying and retrofitting are a key stakeholder in the implementation of the Healthy Homes Act. And how they build capacity is at the heart of the equity issue.

The Healthy Homes Act, which Electrify DC wholeheartedly supports, contains a number of provisions relating to training and education. Adequately funding training and education is critical to ensure a successful implementation. To illustrate how critical, I'd like to run a few numbers with you.

We have heard very compelling testimony about why this bill should tackle all 60,000 low-income households, and Electrify DC supports that, but let's run the numbers on the 30,000 homes that the bill currently covers.





Given the age of the District's housing stock and the probability that most of those low-income homes have not had renovations in recent years, it is fair to assume most of them will need an electrical panel upgrade, especially if during the retrofits we were to leverage the Solar for All program and install solar panels.

An electrical panel upgrade takes two electricians a minimum of a day and a half plus inspection, so let's assume 20 hours per home. There are 2087 work hours in a year, which means roughly 100 electrical panel upgrades per electrician per year. Therefore, just to upgrade the electric panels of 30,000 homes, we would need an additional 300 electrician years (i.e. 300 electricians if we were to tackle all upgrades during year one, 150 additional electricians if we were to tackle all upgrades in the first two years, 100 additional electricians if we were to tackle all upgrades in the first three years, and so on). It is important to note that electrical panel upgrades need to happen at the very beginning of this home retrofit journey.¹

And that is just for the electrical panel upgrades, not the actual swapping of appliances, or any other electrical work needed. Today, as it is, before the rebates from the Inflation Reduction Act have even come online, electricians are often booked out for months. As people with more means become aware of the tax credits already available, electricians will be in even higher demand.

The shortage of electricians is particularly dire across the entire country. According to the Bureau of Labor Statistics, the U.S. currently needs about 80,000 new electricians every year.² But those in the field say filling those jobs is going to be exceptionally difficult, as, each year, more trained electricians retire than new electricians join.

It is important to be candid about what implementing the Healthy Homes Act, and more generally electrifying all our buildings, will take in terms of workforce development. We must be intentional, strategic and determined, and we must work hand in hand with the existing businesses and future entrepreneurs. Because right now, even if all of them were informed and bought-in about the need to electrify our buildings, they simply do not have the people to take on the enormity of this task.

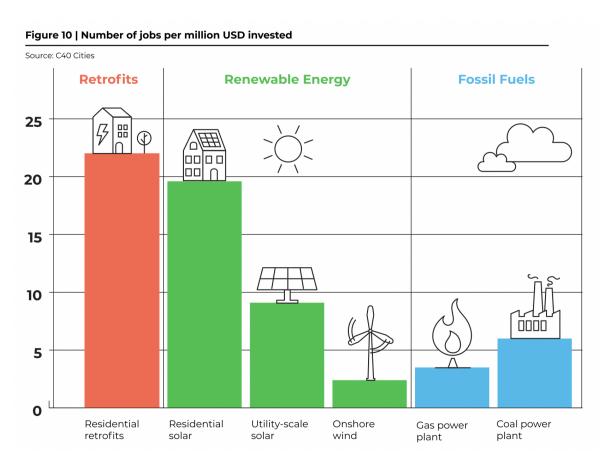
To implement at the speed needed we must make sure the businesses and entrepreneurs are seen as real partners - they are uniquely positioned to know where the implementation bottlenecks are, what policy, regulatory, and educational changes are needed, and where the pushback is going to come from. Empowering them to lead

¹ See page 23ss of Electrification Study for the District of Columbia

² https://www.bls.gov/ooh/construction-and-extraction/electricians.htm#tab-6



from within their industries and professions ensures the long term success of the home electrification effort.



But looking at the pain of overcoming the capacity constraints is looking at the glass half empty. The glass half full perspective is that investing in home retrofits creates the most jobs per dollar invested.³ Therefore, the Healthy Homes Act has the potential to be a transformative piece of legislation also in that respect. If funding workforce development is prioritized in the first 5 years of implementation, it will lead to health, equity and more and better paying jobs.

In the words of Bill McKibben, "If you know a young person who wants to do something that's going to help the world and wants to make a good living at the same time, tell them to go become an electrician."

Thank you.

³ C40 Cities (2022) The cost of fossil gas

⁴ The Great Electricians Shortage, The New Yorker, April 2023.

Testimony Before the DC Council Hearing on the Healthy Homes Act.

May 9, 2023

My name is Ann Mead. I am a 17-year DC resident currently residing with my family in Ward 5. I am also a public health professional and registered nurse at one of the area's largest hospitals serving an extremely diverse patient population with wide disparity in access to safe, healthy living environments and in the control they have over environmental factors that cause drastic effects on their health.

The EPA widely recognizes race disparities in exposure to air pollutants, water and soil contaminants and shelter from extreme heat based on place or type of residence. Our environmental movements to date have not been just, and many decisions about where we dump our waste, how we distribute our water, where and what we blow into our air have historically excluded folks of color, of lower income and those politically marginalized from decision making. An American legacy of discriminatory housing practices, gentrification, and unequal access to political decision-making means that "more than half of the 9 million people living near hazardous waste sites are people of color, and black Americans are three times more likely to die from exposure to air pollutants than their white counterparts."* Inside homes, "Black Americans are 55% more likely to die from causes related to pollution from fossil fuel burning appliances than white Americans."

Additionally "asthma rates in children living in homes with gas stoves are comparable to those of children living with cigarette smokers, with 12% of all childhood asthma cases attributed directly to gas stoves." In my daily work, the additional, avoidable health complications that arise from lack of access to unsafe living situations provide stark reminders that place and type of residence most certainly have direct, acute and chronic consequences on health. And, factors including income, and complex life stressors most certainly inhibit one's ability to make choices that are healthier for their environment.

I am fortunate and privileged enough to have the ability to make choices about where I live, about the type of appliances in my home, the sources of water I give to my kids, and the indoor air quality they are exposed to. DC's Health Homes Act would afford at least 30,000 of my neighbors similar choices, by making them eligible for replacements of gas-fired appliances and heating systems, without the otherwise inhibitory cost of doing so. The Healthy Homes Act establishes a program to remove fossil fuel appliances and equipment from homes and provide efficient electric systems as replacements, thus lowering utility bills and improving indoor air quality for individuals WHILE speeding the collective transition toward a healthier environment and a more sustainable way of living. The Healthy Homes Act also extends benefits to businesses by establishing a training program for DC-based small businesses, DC-based minority-owned businesses, and DC workers to perform residential electrification retrofits.

Our transition to sustainability must be fast, but broad and inclusionary. Our policies to promote sustainability MUST be equitable; that is, they MUST serve all of us regardless of race, income, ethnicity, or immigration status. The Health Homes Act is one way to help everyone make this environmental transition together.

*https://qz.com/1226984/environmental-racism-has-left-black-americans-three-times-more-likely -to-die-from-pollution

Thank you committee members and staff for your work on behalf of our government. I think the Healthy Homes Act is important because it addresses inequality in the district. In the 6 years I have been raising kids in Ward 7, I see how income inequality impacts my family everyday. My daughter had a cough the whole year she was three years old, and I often wondered whether she was sick because I couldn't afford to live somewhere with cleaner air. Now I know that my gas stove could be making her sick, and I look forward to upgrading to an electric stove.

I bought a house in a wonderful vibrant community, but lower income puts many of us at risk for poor quality "jerry-rigged" home repairs that can make our houses less warm, comfortable, and healthy. My own houses heat only extended through one part of the house, making the rest impossible to keep warm in winter until I got a raise and could afford repairs. These basic inequalities in how we live keep parents up at night. You want to do right by your kids, but that "right" is limited by the "might" of your paycheck.

However, it doesn't have to be this way. The Healthy Homes Act is a step in the right direction. By prioritizing low-income homes for electrification and weatherization, it will help make sure that people can live in efficient, comfortable homes regardless of income.

Additionally, electrification of buildings is necessary for our city to meet its goal of becoming carbon neutral. This bill will be a concrete step towards 100 percent electrification.

Please pass the Healthy Homes Act and continue to bring DC closer to a carbon neutral future.

Kate Bockover

Statement in Support of the Healthy Homes Act

Amy Hubbard 202-271-5858 Resident, Ward 6 Volunteer with Citizens Climate Lobby

I'm writing to encourage the DC Council to pass and fund the Healthy Homes Act. The Healthy Homes Act establishes a program to remove fossil fuel appliances and equipment (furnaces, water heaters, stoves, and ovens) from homes and provide efficient electric systems as replacements for eligible DC households.

I know that nationally there has been a debate about changing from gas to electricity. In my family, gas stoves were also once highly prized for their superior cooking ability. For many years, my husband, the family cook, felt aggrieved because the house we bought in 2002 was all electric. He had always wanted a gas stove to cook on and had to do without because we had to buy a cheap electric house that we could afford. However, recently we bought an induction stove, which my husband loves and now he will never go back to gas. We also discovered that my husband has a rare genetic disorder, Alpha-1 Antitrypsin Deficiency, which gave him emphysema. Given what we've learned about the impact of gas on health, it would be way too risky for him to cook with gas anyway. While gas was once a valued commodity in our house, it is no longer – nor should it be in the homes of other DC residents.

The Healthy Homes Act will reduce indoor air pollution for at least 30,000 low- and middle-income DC households eligible for replacement of gas-fired appliances and heating systems at no cost to them. Switching to efficient electricity would reduce the risk of children developing asthma. It is critically important for the health of our families.

Furthermore, the increasingly rapid recurrence of severe weather events has shown how very serious the impact of climate change is on our country. While DC has shown more leadership than most cities in the effort to reduce climate change, this is no time to rest on our laurels. I am very worried about the future that my child and her children will face as our planet deteriorates year by year. The District of Colombia must continue to reduce its carbon footprint by helping its residents move towards a carbon-free, healthier form of energy in our homes.

Please pass the Healthy Homes Act and continue to bring DC closer to a carbon neutral future.

To whom it may concern,

I am a Ward 2 voter and resident writing to express my support for a speedy vote and passage of the Healthy Homes Act.

This bill is a critical step in reducing environmental injustice and towards local emissions reductions goals. The opportunity to replace fossil-fuel burning systems in 30,000 homes should not be passed over or delayed.

This bill will improve public health outcomes and help us move towards emissions targets. It will also reduce the burden of inflation on lower income households by bringing down skyrocketing utility bills. This legislation is a win-win for all involved -- and I impress my enthusiastic support on this issue.

Further, a recommendation: the bill should be written to incorporate funding from the Inflation Reduction Act, the landmark climate bill passed by Congress last year through tens of thousands of calls to Congress by Citizens Climate Lobby. The current bill does not include this language. To supplement funding from the Inflation Reduction Act, the existing methane tax should be increased. This will tax pollution in our city, and return money to help low income people through the program by reducing their energy bills.

Thank you for your consideration.

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Morgan Buckley 415-497-8802 Hello,

I am a DC resident in the Deanwood neighborhood of Ward 7 and I support the "Healthy Homes and Residential Electrification Amendment Act of 2023" (B25-119).

The clean energy transition will reduce CO2, reduce pollution, and lead to more local clean energy jobs. Please support this.

Thank you, Max Richman Ward 7 Resident





Members of the Council of the District of Columbia,

Founded in 1918, the American Gas Association (AGA) educates the public about the importance of natural gas, supports natural gas utilities in their efforts to make their operations safer, more efficient and more environmentally friendly, and serves as a resource for local, state and federal policymakers when it comes to regulating the natural gas industry. AGA represents more than 200 local energy companies serving more than 74 million customers including 75% of homes across the District of Columbia that utilize natural gas to stay warm, cook their meals, or enjoy a hot shower.¹

Thank you for the opportunity to share why nearly 187 million Americans and 5.8 million businesses use natural gas because it is affordable, reliable, safe and essential to improving our environment. America's natural gas utilities are innovative and committed to reducing greenhouse gas emissions through new and modernized infrastructure and advanced technologies that maintain reliable, resilient, and affordable energy service choices for consumers.

To that end, AGA invests significant resources developing data, studying, analyzing and reporting on the economic, operational, regulatory and technical aspects that must be considered and addressed to maintain our current safe, reliable and economic natural gas utility infrastructure and service. These comments are the fruits of that work and we hope the Council finds them of assistance.²

Natural Gas is the Affordable Choice for Homes and Businesses

According to the U.S. Department of Energy the direct use of natural gas is 3.4 times more affordable than electricity.³ On a national basis, annual utility energy bills for homes using natural gas are roughly 49% lower than the comparable all-electric home amounting to an annual savings of \$1,022.⁴ Furthermore, the typical residence using natural gas has 21% less emissions on a CO2e basis than a comparable all-electric home.⁵

¹ Energy Information Administration, *Highlights for fuels used in U.S. homes by state*, 2020 (Mar. 2023), https://www.eia.gov/consumption/residential/data/2020/state/pdf/State%20Fuels%20Used.pdf.

² AGA takes no position on any proposed or pending legislative or regulatory actions. The data and technical analysis herein is provided consistent with AGA's non-profit, tax exempt status and to educate the public and policy makers.

³ Available at: https://www.federalregister.gov/documents/2022/03/07/2022-04765/energy-conservation-program-for-consumer-products-representative-average-unit-costs-of-energy.

⁴ American Gas Association, *Comparison of Home Appliance Energy Use, Operating Costs, And Carbon Dioxide Emissions*, (Mar. 2023), https://www.aga.org/wp-content/uploads/2023/03/Appliance-Cost-and-Emissions-Comparison-2022.pdf.

⁵ *Id*.

When examining the pathways to achieving deep decarbonization in the building sector all relevant stakeholders must be included to develop a robust analysis that details both the upfront and long-term costs to homes and businesses. Recent analyses from jurisdictions pursuing similar goals found that decarbonization pathways relying on an integrated energy system carry a lower overall cost and level of challenge relative to those that rely too heavily on any one technology or fuel source. Supply chain and workforce availability and potential constraints should be closely examined prior to implementing aggressive all-electric mandates that may stress them.

DOEE's recent report⁷ on strategic electrification raises several questions and issues that deserve careful consideration before it forms the basis of any major policy decisions. The report's conclusion that the existing electric system can handle growing levels of electrification out to 2032 is based on a flawed methodology that likely severely underestimates peak winter demand. The DOEE report fails to conduct a true peak-of-peak analysis on the impacts to the electric grid because it is dependent on a no-surprises forecast from increased demand. Furthermore, the report uses 2019 as its baseline⁸ to forecast substation demand which may severely underestimate demand as that year had a generally warmer than normal winter. Even using this unrealistic approach, the study *still* concludes that electrifying just 32% of the buildings in DC will overload 31 of the 371 feeders analyzed and others will be "very close" to max capacity in 2032. These are significant upgrades costs that will be allocated. In sum, the report does not represent the current state of the District's infrastructure but rather a posited version of a moderately electrified building sector that even under the best case scenario would result in significant costs in exchange for uncertain benefits.

Testimony from linemen in the electric sector in other areas of the country implementing electrification mandates have expressed grave concerns about workforce and supply shortages warning that even if all 200,000 electric linemen in the country were to go to Northern California to staff all the work scheduled, it would still take over ten years to get all of the work done. Building decarbonization strategies that leverage the strengths of the gas distribution system can avoid many of the financial and technical challenges associated with a pathway that relies too heavily on any one technology.

⁶ See E3 & BGE, BGE Integrated Decarbonization Strategy, (Oct. 2022), at 5,

 $https://www.bge.com/SafetyCommunity/Environment/Documents/BGE\%20Integrated\%20Decarbonization\%20W hite\%20Paper_FINAL\%202022-10-06.pdf$

⁷ See District of Columbia Department of Energy and Environment Energy Administration, The Strategic Electrification Roadmap for Buildings and Transportation in the District of Columbia, (Apr. 2023).

⁸ Based on the report it would appear the 2019 winter design day featured in parts of the modeling was February 6, 2019 – a day which had a daily low of only 42 degrees Fahrenheit, equivalent to an early spring day.

⁹ Testimony of Mike Brown, IBEW Local Union No. 77 available at:

https://www.sbcc.wa.gov/sites/default/files/2022-06/Brown IBEW Res Electrification 061422.pdf.

The Natural Gas Distribution System Offers Unparalleled Reliability & Resilience Attributes

On an energy equivalent basis, the gas system provides 2-3 times the energy as that of the electric sector during peak demand. Overreliance on any one source of energy can jeopardize overall energy system reliability and resilience and ultimately result in greater costs for all consumers. Widespread electrification would likely result in significantly higher peak-day electric power asset requirements which often takes the form of higher-emitting resources. Pathways utilizing the existing gas distribution solve this problem by preventing the unnecessary overbuild out of the electric system to meet peak demand thereby reducing costs while maintaining reliability.

The natural gas distribution system is an incredibly reliable energy delivery system with unplanned outages affecting only about 1 in 800 natural gas customers per year. By comparison, electric distribution systems have an average of one outage per year per customer. In a 2020 analysis, the Government Accountability Office found that compared to electric power outages, the frequency and scope of outages to natural gas consumers appears relatively limited. Gas interruptions usually did not result in a complete loss of service to affected consumers however the scope of electric outages can be extensive, affecting millions of consumers for days at a time.

Gas Utility Infrastructure is Vital to Achieving Emissions Reductions

To achieve lasting, affordable, and reliable deep emissions reductions the existing natural gas distribution infrastructure that District residents have already invested significantly in must be part of the solution. The District can achieve significant emissions reductions by working with its local utility to accelerate the use of tools available today, including high-efficiency natural gas applications, renewable gases, methane reduction technologies, and enhanced energy efficiency initiatives.

Natural gas utilities are recognized as leaders in the energy industry for their successful history of reducing emissions spending almost \$4.3 million a day on energy efficiency programs. This exceptional record can be traced to gas utilities continuing to make safety their top priority and remaining deeply committed to systematically upgrading infrastructure through risk-based integrity management programs. Annual methane emissions from distribution systems owned and operated by local natural gas utilities annual have declined 70 percent between 1990 and 2021, even as more than 22 million customers and more than 815,000 miles of pipeline were added to the distribution system over the same period. 10

Pathways that utilize natural gas and the vast utility delivery infrastructure offer opportunities to incorporate renewable and low-carbon gases, provide optionality for stakeholders, help

¹⁰ Environmental Protection Agency, 2023 Inventory of U.S. Greenhouse Gas Emissions and Sinks (1990-2020), at 3-95 (April 2023), https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2021.

minimize customer impacts, maintain high reliability, improve overall energy system resilience, and accelerate emissions reductions. The ability of natural gas infrastructure to store and transport large amounts of energy to meet seasonal and peak day energy use represents an important and valuable resource that needs to be considered when building pathways to achieve the District's climate goals.

There are No Documented Health Hazards Associated with Gas Stoves

There are no documented risks to respiratory health from the proper use of natural gas stoves by government agencies and advisory committees responsible for protecting residential consumer health and safety, including the Federal Interagency Committee on Indoor Air Quality and the Consumer Product Safety Commission.

A recent peer-reviewed examination¹¹ of existing research concludes that there is not sufficient evidence to demonstrate causal relationships between gas cooking and indoor NO₂ and asthma and wheeze in children. The systematic review thoroughly examined 66 epidemiology studies and found that there was generally low study quality and high study heterogeneity, making a meta-analysis not appropriate and cautioning against reliance on previously reported meta-analysis risk estimates.

Proper ventilation when cooking with any energy source is the most important step you can take to mitigate cooking related air quality. Cooking activities by themselves, (e.g., grilling, frying, broiling, baking) are a source of indoor air emissions, including particulate matter. This is why many jurisdictions require kitchen exhausts in all new homes, regardless of energy source, gas or electric.

Conclusion

AGA appreciates and echoes the District's commitment to a more sustainable environment. Thank you for the opportunity to share how the economic, operational, regulatory and technical characteristics of the natural gas energy delivery network can help provide a safe, reliable, and affordable energy source well into the future.

Respectfully,

American Gas Association

¹¹ The systematic review by Li *et al.*, funded by AGA and published in Global Epidemiology on April 18, 2023, is entitled "Gas Cooking and Respiratory Outcomes in Children: A Systematic Review." AGA was not involved in the drafting of this paper and the authors had sole responsibility for the contents and professional opinions offered.



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WRITTEN STATEMENT

JOHN KEANE MANAGER OF GOVERNMENT RELATIONS

ON BEHALF OF THE ASSOCIATION OF HOME APPLIANCE MANUFACTURERS

BEFORE THE COUNCIL OF THE DISTRICT OF COLUMBIA
COMMITTEE ON TRANSPORTATION & THE ENVIRONMENT
COMMITTEE OF THE WHOLE
COMMITTEE ON HOUSING

HEARING
B25-0119
HEALTHY HOMES AND RESIDENTIAL ELECTRIFICATION AMENDMENT ACT OF 2023

MAY 9, 2023

Chairman Allen, Chairman Mendelson, Chairman White Jr., and all Councilmembers, I appreciate the opportunity to provide testimony on Bill 25-0119, the Healthy Homes and Residential Electrification Amendment Act of 2023.

AHAM supports cooking choice for consumers, and we also recognize that states and municipalities are working toward climate goals. Each municipality may have a different plan and appliance manufacturers are focused on how they can supply solutions to whatever direction is chosen. However, we do not support banning viable options for consumers, whether gas or electric. Gas and electric appliances are a safe and affordable choice. Many home and professional chef's value gas cooking for its speed and control. A prohibition on installation of gas appliances could remove an affordable energy choice that the people in Washington, DC may depend on.

Consumers in the U.S. are fortunate to have a variety of cooking options available and they can rest easy knowing that all ranges and cooktops, whether gas or electric, meet or exceed approved safety standards and building codes. AHAM is leading efforts to further improve cooking-related indoor air quality, including revising consensus standards as required. The appliance industry is actively working with regulatory bodies including the U.S. Consumer Product Safety Commission (CPSC) to study natural gas cooking appliances. The impact on indoor air quality from the emissions from cooking products has been studied and considered by standards, regulatory bodies and building codes for decades:

- A recent study of California ventilation system requirements completed by Lawrence Berkeley National Laboratory for the California Energy Commission found that current ventilation requirements were adequate to protect consumer health and safety from a variety of sources, including kitchen sources of airborne contaminants. ¹
- CPSC has determined that there is generally a low likelihood of adverse health effects associated with carbon monoxide emissions from properly functioning unvented gas ranges.
- The Environmental Protection Agency (EPA) does not list gas stoves as significant contributors to indoor air quality or health hazards. In fact, EPA recommends using ventilation hoods or downdrafts and states that using a hood with a fan vented to the outdoors, and properly adjusting burners, greatly reduces exposure to pollutants during cooking.

AHAM continues to develop information and educate consumers about the safety of cooking appliances and ways to reduce cooking emissions including ventilation. As homes have become more tightly constructed, the need has grown for specific steps aimed at improving ventilation.

¹ https://eta-publications.lbl.gov/sites/default/files/indoor air quality in california homes with coderequired mechanical ventilation 0.pdf

That's why building codes have long required mechanical ventilation and external cooking exhaust in newly constructed more airtight homes for both electric and gas cooking.

The home appliance industry designs products that are as safe as they are useful. AHAM is committed to preserving an environment that allows for choice and innovation in cooking. Bans on gas appliances restrict consumer choice and remove affordable choices that consumers love, such as gas cooking appliances. I would be happy to discuss further.

Sincerely,

John Keane

Manager of Government Relations

John Kone

My name is Jake Karaisz. I live in Ward 1 in Columbia Heights, and I've lived in the District of Columbia for about two years now. I bring greetings from Friends Meeting of Washington, a Quaker congregation in Dupont Circle. I'd like to offer my support for the Healthy Homes and Residential Electrification Amendment Act of 2023.

Friends, as Quakers are often called, maintain that that of God exists within every person, regardless of race, sex, income, or even Ward. This has informed our faith's historic tradition of nonviolence and spirited activism both in the peace movement and in other efforts to ensure a more just world. And while Quakers are largely without formal doctrines to guide our faith, we hold in common several other core beliefs, including the necessity to act as good stewards of Creation, our one and only shared Earth.

While Friends worship largely in silence, we do our best to embody our beliefs outwardly and in the community. It's for that reason I'm offering my support for this bill. This important legislation recognizes both that the District of Columbia must transition away from burning fossil fuels and that it must prioritize our most vulnerable communities in the process.

The District of Columbia has the opportunity to display great leadership in the transition to renewable energy by passing the Healthy Homes Act. With about a quarter of DC's emissions coming from the burning of gas in homes and other buildings, this legislation provides our city with a way to meet its goal of carbon neutrality by 2045. I am optimistic that the passage of such legislation in the nation's capital could serve as a model for municipalities around the country and demonstrate that they can make a real impact in ensuring a livable future for all.

This legislation is also deeply thoughtful in its prioritization of the city's poorer residents, who bear the burden of poor indoor air quality from the use of gas appliances. Children in homes with gas appliances are far more likely to develop asthma. Black children in Ward 8 are dramatically more likely to be hospitalized for asthma than children in wealthier Wards. By retrofitting the homes of those with low and middle incomes, we can avoid the unnecessary health complications associated with burning fossil fuels in our homes.

Electrification retrofits are an important tool that we can use to ensure a cleaner and healthier city for all. As a person of faith, I also believe that this is a rare instance in which public policy for our city squares so neatly with my own convictions. I encourage the Council to vote to approve the Healthy Homes Act.

May 9, 2023

3024 Tilden St. NW, Apt. 303 Washington DC 20008

Mr. Chris Laskowski
Committee Director
Committee on Transportation and the Environment
Council of the District of Columbia
Submitted via email: claskowski@dccouncil.gov

Re: Bill 25-0119, the "Healthy Homes and Residential Electrification Amendment Act of

2023

Dear Director Laskowski:

I'm unable to testify at today's hearing and wish to file the following written testimony. My name is Philip Downey, a resident of Ward 3 and an active member of Citizen's Climate Lobby (CCL). I'm also a parishioner of St. Matthew's Cathedral, a member of the Archdiocese of Washington (ADW) Care for Creation Committee, and an active supporter of DC Interfaith Power and Light (IPL). I'm writing to voice strong support for the Healthy Homes Act.

CCL, the ADW and IPL all work to create political will for a livable future and stand for solutions that are just for all Americans--most importantly, those who have been historically marginalized, and consequently have suffered from environmental injustice. I also have two grandkids and am expecting a third in a few months. I often ponder the words of Pope Francis: "What kind of world do we want to leave to those who come after us, to the children who are now growing up?"

I'm proud to live in a city committed to a zero-carbon future. Our task today is to build a path to that goal, and this legislation provides a critical step forward on that path. Seventy percent of DC carbon emissions come from buildings. Most of these buildings are residential, and many residents cannot afford to retrofit from gas to electric, and in doing so reduce cost for households, eliminate indoor methane pollution, and take a major leap towards our carbon-free future.

Retrofitting 30,000 homes would be a huge leap—approximately 17% of DC residences. ¹Those that can afford to do it on their own can also benefit from other rebates and subsidies available through DOEE and the IRA.

As you consider this bill, I'd encourage additional focus on retrofits in larger multifamily apartment structures. The subject bill is an excellent solution for owners and occupants of single-family units but does not appear to be crafted for large apartment buildings, where retrofits are controlled by owners/managers seeking economies of scale and standardized

¹ The DC Policy Center estimates that there are 183,000 residential units in DC

HVAC systems. I'm confident that other solutions tailored to this class of buildings can also be found.

Thank you for your attention, and for your commitment to a livable future for all Washingtonians.

With appreciation,

Philip Downey 571-423-8944 Phildowney.jr@gmail.com



DC Organizations Support the Healthy Homes Act

The undersigned organizations urge the DC Council to pass and fund the Healthy Homes and Residential Electrification Act of 2023 (B25-0119) to protect DC residents from the climate and public health threat of burning fossil fuels in our homes. The Healthy Homes Act would provide low and middle income DC households the opportunity to switch from fossil fuels to clean and efficient electric heating and induction cooking with no out-of-pocket costs. **This is a critical next step in DC's path to clean energy and a better future for all our community's residents for these reasons:**

Climate

About a quarter of DC's total climate pollution comes from methane gas that is drilled through a process called fracking and then pumped into our homes to be burned in furnaces, hot water heaters, stoves, and ovens.

Health

Gas burned in buildings for heating and cooking pollutes indoor air with toxic compounds linked to asthma, cancer, and other serious ailments. Research has shown that children growing up in homes with gas appliances are 42% more likely to develop asthma, and that children in homes with gas appliances have similar asthma rates as children who grow up with cigarette smokers. Gas pollutants also contribute to lung disease, hypertension and many other health conditions.

Equity

Supplementing federal funding now available for clean energy upgrades with local dollars will ensure that DC's most vulnerable residents are first in line to receive the benefits of clean energy and not forced to bear the health impacts and high costs of dirty energy.

Affordability

Fracked gas prices increased more than 50% last year. And the costs will continue to skyrocket – Washington Gas is seeking to charge DC residents almost \$5 billion dollars just to maintain its existing gas infrastructure. Clean and efficient electric systems are more affordable than ever, especially with the millions of dollars in federal incentives coming to DC to transition our buildings off fossil fuels.

Planning for a robust economic future

The Healthy Homes Act must be passed and fully funded to ensure that our communities can take advantage of federal funding to empower DC residents to improve air quality in their homes, cut climate pollution, and free themselves of ever-increasing fossil fuel costs.

To meet DC's climate commitments, to protect public health, and to reduce energy costs, we urge the DC Council to pass and fully fund the Healthy Homes Act.

Washington Interfaith Network	Sierra Club	Interfaith Power & Light (DC.MD.NoVA)
DC Fiscal Policy Institute	Earthjustice	NAACP, DC Branch
DC Asthma Coalition	Ipsun Solar	SEIU 32BJ
League of Women Voters of DC	Empower DC	Moms Clean Air Force DC Chapter
Anacostia Parks & Community Collaborative	GRID Alternatives Mid-Atlantic	Jewish Community Relations Council of Greater Washington
Nature Forward (formerly known as Audubon Naturalist Society)	Center for Biological Diversity	Chesapeake Climate Action Network
Sunrise DC	DC Environmental Network	Friends Meeting of Washington Committee on Peace and Social Concerns
The Festival Center	Evergreen Action	DC Climate Action
We Power DC	Metro DC DSA	DC Voters for Animals
Wentworth Green Strategies	Citizens' Climate Lobby - DC Chapter	





Portia Hurtt Manager, Public Policy Portia.Hurtt@washgas.com 202.309.5575

May 9, 2023

The Honorable Charles Allen
Chairman, Committee on Transportation & Environment
Council of the District of Columbia
1350 Pennsylvania Avenue, NW Suite 504
Washington, DC 20001

Dear Chairman Allen:

On behalf of Washington Gas, I write to register the Company's objection to the Healthy Homes and Residential Electrification Amendment Act of 2023 (B25-0119) because it would increase permit fees for installing natural gas appliances, discriminate against gas customers, and limit customer choice. The measures proposed in this legislation lack a scientific foundation towards our mutual goal of reducing CO² emissions. In fact, the Bill 25-119, will most likely increase CO² emissions and raise the cost of living in the District by significantly increasing utility bills.

The typical residence using natural gas has 21% less emissions on a CO²e basis than a comparable all-electric home. Electricity is a secondary energy capture and is currently generated in this region primarily from non-renewable sources, including oil and coal. As such, attempts to prohibit the highly efficient direct use of natural gas and/or limit support for high-efficiency natural gas appliances may simultaneously increase customer costs, increase CO² emissions, and diminish energy reliability and resilience.

Today, nearly all of the District's electricity is produced outside of the District and delivered by the regional transmission organization, PJM. The PJM publishes the fuel mix

¹ American Gas Association, Comparison of Home Appliance Energy Use, Operating Costs, And Carbon Dioxide Emissions, (Mar. 2023), https://www.aga.org/wp-content/uploads/2023/03/Appliance-Cost-and-Emissions- Comparison-2022.pdf.

of electricity delivered to the District daily on their <u>website</u>. It also publishes information relating to the reliability of the electric generation delivered to the District of Columbia. We urge the Council to review this data. While we recognize that the District has legislated the procurement of increasingly higher levels of renewable electricity, we note the PJM's reporting on the overall carbon intensity of its supply, and increasing concerns regarding the reliability of the system's generating assets and its deliverability to customers². We further note that when customer demand is heaviest, the electric grid is predominantly fueled by fossil resources. The approach taken by Bill 25-119 represents a furtherance of a dogmatic belief by some that electricity use represents the only pathway towards lower carbon emissions and a failure to recognize the existing efficiency of natural gas and to advance available technology to further reduce emissions associated with natural gas.

If the Council is truly interested in ensuring reliable, affordable energy for its residents while achieving lasting and affordable emissions reductions, the existing natural gas distribution infrastructure must be part of the solution. Annual methane emissions from distribution systems owned and operated by local natural gas utilities annual have declined 70 percent between 1990 and 2021, even as more than 22 million customers and more than 815,000 miles of pipeline were added to the distribution system over the same period.³

The District can immediately achieve emissions reductions by working with Washington Gas to accelerate the use of tools available today, including high-efficiency natural gas appliances and other energy efficiency initiatives. Pathways that utilize natural gas and the vast utility delivery infrastructure offer opportunities moving forward to incorporate renewable natural gas, other lower carbon gaseous fuels of the future, provide energy choice to customers, maintain high reliability, and improve overall

 $^{^2\} https://www.pjm.com/-/media/library/reports-notices/special-reports/2023/energy-transition-in-pjm-resource-retirements-replacements-and-risks.ashx$

³ Environmental Protection Agency, 2023 Inventory of U.S. Greenhouse Gas Emissions and Sinks (1990-2020), at 3-95 (April 2023), https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2021.

energy system resilience. The ability of natural gas infrastructure to store and transport large amounts of energy to meet seasonal and peak day energy use represents a valuable resource that must be considered as we build pathways to achieve the District's climate goals.

Additionally, efforts to eliminate natural gas as an option for residents will further increase the cost-of-living for constituents. Natural gas continues to be among the most affordable energy options for residents of the District. According to the U.S. Department of Energy, the direct use of natural gas is 3.4 times more affordable than electricity. Annual energy bills for homes using natural gas are roughly 49% lower than the for a comparable all-electric home, amounting to an annual savings of \$1,022. Any program designed for low- and middle-income residents must consider not only purchase and installation costs, but overall operating costs year after year.

Washington Gas believes a science-driven, fact-based approach will positively benefit District residents. New taxes and fees disincentivize customers from improving their homes and offices, especially in a period of high inflation and volatile energy markets. In conclusion, we respectfully ask that you consider the points above, and remove the increase in natural gas appliance permit fees as discussed. Thank you for your time and consideration.

Sincerely,

Portia Hurtt
DC Manager, State Public Policy & Government Relations
Portia.Hurtt@washgas.com
202.309.5575

⁴ https://www.federalregister.gov/documents/2022/03/07/2022-04765/energy-conservation-programfor-consumer-products-representative-average-unit-costs-of-energy.

Max Froomkin 202-891-1571 mfroomkin24@gds.org May 22, 2023

Healthy Homes and Residential Electrification Amendment Act of 2023 Written Testimony

Thank you Chairman Allen and the Committee on Transportation and the Environment for hearing my testimony. I appreciate the opportunity to participate in my local government and express my support for the Healthy Homes and Residential Electrification Amendment Act of 2023. I think it's one of many steps our city can take to advance environmental and energy-saving initiatives and ensure the health of our residents.

This act addresses pressing issues of climate change and safety, while making sure to keep apportionment of government aid equitable. It takes on the urgency of transition away from indoor fossil fuel-powered appliances, such as gas stoves and heating systems. My home features both, and my family hasn't switched because of the cost. As such, I particularly appreciate the incentives this bill would provide for replacing them, and imagine that these provisions would help many make the shift to electric.

This act is a local solution with global implications - by incentivizing the transition to clean energy sources, we're showing the world how to combat climate change in our own backyard. We would enable safer homes, while also reducing our emissions.

I support the Healthy Homes and Residential Electrification Amendment Act of 2023 and urge you to consider its ability to move us forward. It's a smart investment that can help build a healthier, more sustainable, more equitable DC. Thank you for your time and consideration.

Navin Desai 202-309-7676 ndesai24@gds.org February 8, 2022

Healthy Homes and Residential Electrification Amendment Act of 2023 Testimony

Thank you Chairman Allen and the DC Council's Committee on Transportation and the Environment. I appreciate the opportunity to submit my written testimony on behalf of Georgetown Day School's Student Action Committee and Environmental Task Force. As a Ward 3 student, it is my pleasure and responsibility to write to you all in support of B25-0119.

As you know, climate change is undeniably one of the greatest threats currently posed to both us and the future of our planet. Although it may seem as if the impacts have not yet arrived, many people, including those within DC, are currently feeling its effects at this second. Within the district, we are seeing increased rainfall, flooding, and storm surges of the Potomac River, among many others. Unfortunately, these impacts are far exacerbated for disadvantaged DC communities with fewer resources to battle these impacts. This past summer, I spent over a month intensively exploring environmental injustice within our own district, such as in Anacostia, and was left feeling an absolute need to contribute to the environmental justice movement.

We need policy action now—it's as simple as that. Now and before, every moment of promising climate legislation that was presented gave me hope for a better future. This hope, however, has always crumbled under the weight of leaders' inabilities to *care* enough. Now, B25-0119 is being put into this exact situation; this time, though, there is no room for the light to dim.

B25-0119 would help DC significantly cut down on their collective carbon emissions by making the purchase and installation of electric appliances far cheaper—and even free—for low-and moderate-income households. For families earning under 80% of the median family income, obtaining electric appliances will be of no cost, and for families earning between 80%-150%, costs will be drastically reduced. No less will this bill meaningfully combat environmental injustice in the district by allowing communities previously unable to buy such appliances to escape fossil-fuel-combusting stoves, heating, etc., that, in many cases, pose severe health risks for residents within the home.

As the capital city of the United States, we must send strong ripples throughout the nation, the continent, and the world as a whole to make change—both for the causes of global warming and environmental justice.

I hope that in the future, we can all see how greatly B25-0119 impacted the DC area and served as a source of inspiration for the entire national community. Thank you for your consideration.

Audrey Leff, Grace Zia 202-573-2278, 202-210-7995 aleff25@gds.org, gzia25@gds.org

Dear Chairperson Allen and the Committee on Transportation and the Environment,

Thank you for the opportunity to submit our written testimony on behalf of the Environmental Task Force at Georgetown Day School. We are writing in support of the Healthy Homes and Residential Electrification Amendment Act of 2023, bill number B25-0119, and as high school sophomores, we hope you will consider our testimony to approve this incredibly important bill and take more long-lasting action to address climate change in our city.

As DC citizens, we are in full support of a bill like this one that makes our city more sustainable by reducing emissions from household appliances. Climate change is a serious issue facing our country, and it is really important that when we are continuing to advance our city, we are being mindful of the environmental impacts of our actions. This bill is important because it allows us to continue to grow our city by installing electric appliances that are less carbon emissive and benefit lower-income communities by providing them with affordable and sustainable energy.

By codifying B25-0119 and making this change, our city will secure its role as a leader in building more sustainable cities. Living in the nation's capital, the entire world's inhabitants are looking to our District and expecting major action. Yes, this bill is important, but in the future, even larger action is necessary to truly make an impact on our warming climate.

We are beyond fortunate to attend a school that is striving for net-zero emissions but we know that high school students across all wards are expecting more from their schools, local government, and elected representatives. DC must be the blueprint for nationwide and worldwide action, and reducing emissions from household appliances is a step towards making a significant impact.

We have no doubt that you all understand the gravity of taking action and taking a step toward saving the next several generations and that you will act urgently by passing this bill. Thank you.

GOVERNMENT OF THE DISTRICT OF COLUMBIA Department of Energy and Environment



Healthy Homes and Residential Electrification Amendment Act of 2023 Public Joint Committee Hearing

Testimony of

Richard Jackson

Interim Director, Department of Energy and Environment

Before the Committee on Transportation and the Environment Charles Allen, Chairperson

Committee of the Whole Phil Mendelson, Chairman

And

Committee on Housing Robert C. White, Jr., Chairman

May 9, 2023



Good afternoon, Chairpersons Mendelson, Allen, and White and members of the D.C. Council. I am Richard Jackson, Interim Director of the Department of Energy and Environment (DOEE). The pronouns I use are he/him.

Thank you for the opportunity to present testimony before you today on Bill 25-0119, the Healthy Homes Residential Electrification Amendment Act of 2023.

The energy used in District homes and buildings is the largest driver of the District's greenhouse gas emissions, representing 72% in 2020. To meet our vision for a carbon-neutral future by 2045, buildings must be highly efficient, comfortable, resilient, affordable to operate, and, most importantly, electrified. The Healthy Homes Residential Electrification Amendment Act of 2023 would establish a residential electrification retrofit program and direct DOEE to provide replacement of fossil fuel-combusting home appliances, at no cost, to at least 30,000 low-income households by 2040, with interim requirements and submission of a plan. The legislation would also require DOEE to partner with a nonprofit organization to provide training and education to contractors.

DOEE has implemented several programs toward building efficiency and electrification – some in partnership with the DC Sustainable Energy Utility (DCSEU), including:

- Building Energy Performance Standards (BEPS)
- The Affordable Housing Retrofit Accelerator
- The Weatherization Assistance Program (WAP)
- DCSEU's Low Income Decarbonization Pilot and HVAC Replacement programs.

A program similar to the one envisioned under the bill is already in the works. Through the U.S. Department of Energy's (DOE) Home Energy Rebates Programs authorized under the Inflation Reduction Act (IRA), the District will receive \$59 million in formula funding for a home efficiency and electrification program. Our goal is to complete whole-home retrofits, where feasible, at no cost to low-income households. IRA imposes caps on the amount of funding that can be used toward specific home upgrades and on the total spent per household. For example, the rebate for heat pump installation in a low-income household is capped at \$8,000. We expect that the average HVAC replacement would cost several thousand dollars more, and in some cases, could be as high as \$25,000 per home. Similarly, total electrification rebates are capped at \$14,000 per home, while costs could be much higher. The federal law also prohibits combining Home Energy Rebates funding with other federal grants for the same single upgrade or measure. Though DOEE staff are participating in feedback forums and actively planning for implementation, much about the Rebates Programs remains unknown, including when DOE will disburse program funding. Additional guidance is expected this summer.

DOEE supports the intent of Bill 25-0119. Consistent with that intent, we recommend the following amendments for the committees' consideration:

• The U.S. Department of Housing and Urban Development funds a home health and safety hazard mitigation program called "Healthy Homes" that DOEE administers. To



- avoid confusion, we recommend using a different name for this residential electrification retrofit program. We would be happy to discuss options with the committees.
- The bill requires 5,000 retrofits to be completed by 2025; 10,000 by 2030; 20,000 by 2035; and 30,000 by 2040. While DOEE supports phaseout of fossil-fuel appliances and acknowledges its role in educating and engaging residents in this area, we also recognize the challenges, from raising awareness, to engaging residents and building trust for careful, effective implementation. Under the bill, partial replacements would not count toward the requirements. Further, with federal guidance anticipated this summer, DOEE expects full program implementation will occur no earlier than spring 2024. Thus, the bill's 2025 requirement would be difficult to meet.

Accordingly, DOEE suggests that (1) the requirements be turned into targets, and (2) that the targets be adjusted to reflect a ramp-up and a more evenly distributed annual rate of home retrofits. DOEE could propose a schedule that balances feasibility with aggressive action on greenhouse gas emissions reductions.

- The bill requires DOEE to publish a program description and implementation plan on its website by January 1, 2024. We agree with this target but recognize that we cannot fully design this program until we receive additional guidance from the DOE. An alternative would be to set the deadline for a specified period of time (*e.g.*, 8 months) after DOE publishes final program guidance.
- For the definitions of low-income household and moderate-income household, DOEE suggests that the bill allow DOEE to default to the income definition(s) set by the Department of Energy in their program guidance.
- DOEE shares the goal of ensuring that households above 80% area median income (AMI) will see meaningful retrofit incentives, although we recommend removing the 80-100% carveout. It adds complexity to the program design. DOEE can develop a sliding scale for households between 80% and 150% AMI that ensures households near the cutoffs are meaningfully eligible for benefits.
- For multifamily housing, DOEE suggests that all retrofits completed in a multifamily building that is occupied by at least 50% low-income households be counted toward the targets, consistent with rebate eligibility under IRA. DOEE is exploring how the federal funding can be integrated into the Affordable Housing Retrofit Accelerator and is happy to work with the Committee to ensure all program guidelines and incentives are aligned.
- The DCSEU contract is one potential vehicle to implement this program. However, the existing DCSEU contract may need additional authorization or modification if Council would like DOEE to partner with DCSEU on this program.

Finally, as the Committee continues consideration of Bill 25-0119, DOEE supports an approach that maximizes implementation flexibility to accommodate any requirements that may be imposed by the DOE.

Conclusion

While we support the Council's vision of phasing out fossil-fuel appliances inside of District homes, some of the goals and timeline set forth in the Healthy Homes and Residential



Electrification Amendment Act of 2023 are unattainable. With the changes we have outlined, we believe we can better attain the goal of phasing out fossil-fuel appliances, making District homes safer and more sustainable. Thank you for allowing us to share our views on this bill. My team and I are happy to answer your questions.



GOVERNMENT OF THE DISTRICT OF COLUMBIA DEPARTMENT OF BUILDINGS



Healthy Homes and Residential Electrification Amendment Act of 2023

Testimony of Clarence Whitescarver Chief Building Official Department of Buildings

Before the Committee of the Whole Council of the District of Columbia The Honorable Phil Mendelson, Chairman

and

Committee on Transportation & the Environment Council of the District of Columbia The Honorable Charles Allen, Chairperson

and

Committee on Housing Council of the District of Columbia The Honorable Robert C. White Jr., Chairperson

> John A. Wilson Building 1350 Pennsylvania Avenue, NW Washington, DC 20004

> > May 9, 2023 12:00 p.m.

Good morning, Chairman Mendelson, Councilmembers Allen and White, members of the Committee of the Whole, Committee on Transportation and the Environment, Committee on Housing, and staff. My name is Clarence Whitescarver, and I am the Chief Building Official of the Department of Buildings (DOB). I am pleased to be here today, to offer testimony on the B25-119, the "Healthy Homes and Residential Electrification Amendment Act of 2023."

Introduction

I would like to start by acknowledging the Mayor's efforts to reduce emissions from buildings, energy, and transportation, as outlined in the District of Columbia Climate and Energy Action Plan. In accordance with the plan, the Mayor signed the Climate Commitment Act of 2022 that committed the District government to achieve carbon neutrality by 2040 and ends District government purchase of fossil fuel building equipment and vehicles. Additionally, I would like to commend the Council for passing the Clean Energy DC Omnibus Act of 2019 and the Clean Energy DC Building Code Amendment Act of 2022.

At the Department of Buildings, we support the broad goals set forth in this bill and Council's steadfast dedication to transition the District to carbon neutrality. Although DOEE is charged with administering the Healthy Homes Program, DOB stands ready to assist our sister agency. Nevertheless, we have a few concerns about the bill as they will detrimentally impact DOB's operations.

Administration/ Plan Development

First, the range of impact to DOB's business rules, processes, and operations will require time to fully flesh out. Based on our reading of the bill, there are clearly challenges present. For example, to accommodate the permit fee surcharge for fossil fuel appliances, there would be great impact to our agency's processing procedures and operations. We understand that Council can legislatively grant DOB the power to charge the increased tax required by the bill. However, there would then need to be changes

the permit fee formula that our agency uses to set the cost of permits, as well as a technological investment to codify these changes into the Accela and Permit Wizard systems. We anticipate significant technology investments to build systems capable of measuring and recording British thermal unit (BTU) data, which the bill requires to be used to calculate surcharge fees. There would also need to be strong consideration given to the permit-to-inspection process and enforcement, to ensure the program is both effective and efficient.

Permit Applications

As it relates to building permit applications, the bill requires the cost to be determined based on whether the permit application includes appliances or other systems that combust fossil fuels on-site. This would require DOB to change the requirements of what is mandatory on building permit applications to capture each appliance a property owner plans to use. And as I mentioned previously a complete restructuring of the permit fee formula that currently set the permit cost. Furthermore, once an application is received, an inspection will be needed to verify and approve the application as submitted. Enforcement in this area will be a difficult task. For example, replacing a stove would require property owners to apply for a building permit and pay fees. Even though a stove can be purchased in-store or online and installed by property owners themselves. Comparably, a water heater or furnace requires more technical installation and property owners are more likely to hire a professional. We rely greatly on the honor and merits of District licensed professionals to apply for the necessary permits and complete work in compliance with District regulations. More inspections would be needed as a result of this bill, creating a massive procedural and administrative undertaking for our agency.

Additionally, the District's Construction Codes currently exempt appliances such as cooking and clothes drying appliances from the permit process. This measure would appropriately be considered first by the Construction Codes Coordinating Board (CCCB) to amend the Building Code. For the intent of this bill to be successful, it would require the CCCB to put this measure on the agenda and agree to it. The challenge this presents is that while DOB provides the Board with administrative and staff support, the

CCCB is an independent body delegated with reviewing and updating Construction Codes for the District and, in part, eliminating restrictive regulations and requirements. There is no guarantee that the Board will agree with Council's action if they deem it to be too restrictive

Fee Structure/BTUs

In addition, this Bill requires significant changes to the building permit fee structure. The Building Code Official would be required to include a surcharge of \$0.005 per BTU for persons who list appliances or other systems that combust fossil fuels on the permit application. However, the current permit process only provides the BTU output of built-in appliances that require gas lines. There is no information on specific appliances that will be connected, and their BTU output is not stored or tracked in any system. This bill would require investments in new systems designed to track and store BTU data for the purpose of increasing permit fees. DOB also anticipates significant upgrades needed for existing systems, such as Permit Wizard to capture these new data points.

Postcard Permits

Finally, these challenges would require broad changes to DOB's Postcard Permit process.

Postcard permits are expedited permits for limited predefined work that do not require submission of full building plans and drawings. Traditionally, postcard permits got their name because the scope of work was so limited that it could be written on a postcard. In the District, Postcard Permits or Instant Permits utilize online applications to make small scale common construction projects fast and easy by making the permit process simple. Projects like running a new electrical line, installing a new A/C unit, or replacing a water heater would no longer be classified under the scope of work for Postcard Permits. These projects, based on the text of this Bill, would now require property owners to apply for Building Permits and subject them to plan reviews, which increase the time for customers to obtain permits and pose additional administrative burdens.

Conclusion

DOB looks forward to working with the Council and our counterparts at DOEE during program development. However, we urge the Council to consider how the bill, as currently drafted, will be enforced and the challenges it presents to DOB's operations. Additionally, Council must consider the investments required to implement the program effectively. Thank you for having me here today, and I look forward answering any questions you may have and to continue building upon this dialogue.



B25-119, the Healthy Homes and Residential Electrification Amendment Act of 2023 Written Testimony of Thor Nelson, Associate Vice President of Planning & Design May 23, 2023

On behalf of the DC Housing Authority (DCHA), I appreciate the opportunity to provide written testimony to the Committee of the Whole, the Committee on Transportation & the Environment, and the Committee on Housing on B25-119, the Healthy Homes and Residential Electrification Amendment Act of 2023.

DCHA broadly supports B25-119, the Healthy Homes and Residential Electrification Amendment Act of 2023 and it goal of electrifying DCHA's buildings to improve resident health and reduce DCHA's building portfolio's impact on climate change and local air quality. Our commitment to electrification is evident in our current sustainability projects for Langston Terrace and James Creek that are funded through the Department of Energy and Environment (DOEE) American Rescue Plan Act's (ARPA) grant funds. DCHA has also begun studies for Potomac Gardens and Hopkins Apartments to assess the feasibility of converting these buildings to electric as we conduct comprehensive rehabilitations. While DCHA supports B25-199, we have concerns about the negative impact this legislation would have on schedule and costs of existing pipeline projects, as well as additional capital costs for future rehabilitation projects.

Delay of Existing Pipeline Projects

DCHA has three active projects, at Judiciary House, LeDroit Senior, and Langston Addition, that are in construction that we plan to convert through Rental Assistance Demonstration (RAD) in the next 18 months. As currently drafted B25-199 would require DCHA to redesign these projects to be fully electrified; this would cause an approximately nine- to 12-month delay requiring new building permits and design work. We look forward to working with the committee to draft amendment language that would allow this law to take effect for the DCHA's RAD conversion rehabilitation in 24 months from date of passage. This would ensure all current pipeline projects would stay on schedule and public housing residents would not experience any further delay in having safe, efficient, modern housing.

Impact on DCHA's Capital Budget

While electrification has many operational benefits, the upfront cost is typically a significantly higher expense than simply upgrading and replacing existing systems. DCHA analyzed the costs of electrification on all properties we plan to rehabilitate, and we estimated additional costs of approximately \$89.6M. These estimates include the cost to convert all Heating Ventilation and Air Conditioning (HVAC) systems to air sourced heat pumps and the cost to convert all gas ranges to electric ranges. As improvements are planned over a seven-to-ten-year period, inflation will increase the costs of these estimates. A high-level summary is provided below, and a detailed breakdown of the cost per property is provided at the end of my testimony.



Additional Cost to electrify HVAC systems in Multifamily buildings: \$46,865,480
Additional Cost to Electrify HVAC systems in Town House/Walk-Up buildings: \$17,462,400
Cost to convert gas ranges to electrical ranges: \$25,281,600
Total estimate to electrify DCHA buildings: \$89,609,480

These costs reflect that the existing public housing stock has limited electrical capacity in the units due to the age of construction, and placing new high amperage equipment such as electric ranges and air sourced heat pumps will require upgrades to the electrical systems in these buildings. In addition, the cost also reflects increased relocation costs due to the increased chance that the electrification work will trigger environmental abatement.

DCHA shares the Committees' goal of electrifying buildings in the District. We look forward to continued conversations about how to realize this goal together while keeping existing projects on schedule and planning for the associated capital costs. Again, thank you for the opportunity to provide testimony.

Cost to electrify multifamily HVAC over upgrading existing systems				\$46,865,480.00
Property	GSF	Electrification Cost/SF	Boiler Upgrade Cost/SF	Additional Cost to Electrify
Carroll	48,064	\$ 42.00	\$ 22.00	\$ 961,280.00
Claridge	202,100	\$ 42.00	\$ 22.00	\$ 4,042,000.00
Fort Lincoln	101,500	\$ 42.00	\$ 22.00	\$ 2,030,000.00
Garfield Senior	185,130	\$ 42.00	\$ 22.00	\$ 3,702,600.00
Greenleaf Senior	192,000	\$ 42.00	\$ 22.00	\$ 3,840,000.00
Harvard Towers	179,880	\$ 42.00	\$ 22.00	\$ 3,597,600.00
Horizon House	115,000	\$ 42.00	\$ 22.00	\$ 2,300,000.00
James Apt	120,270	\$ 42.00	\$ 22.00	\$ 2,405,400.00
Kentucky Courts	110,490	\$ 42.00	\$ 22.00	\$ 2,209,800.00
Knox Hill	120,000	\$ 42.00	\$ 22.00	\$ 2,400,000.00
Potomac	179,231	\$ 42.00	\$ 22.00	\$ 3,584,620.00
Regency House	100,000	\$ 42.00	\$ 22.00	\$ 2,000,000.00
Sibley Senior	172,000	\$ 42.00	\$ 22.00	\$ 3,440,000.00
Judiciary House	250,000	\$ 42.00	\$ 22.00	\$ 5,000,000.00
Hopkins Apartments	177,053	\$ 42.00	\$ 22.00	\$ 3,541,060.00
LeDroit Senior	90,556	\$ 42.00	\$ 22.00	\$ 1,811,120.00
Average				\$ 2,929,092.50
Total				\$ 46,865,480.00



Cost to electrify Townho	\$17,462,400.00			
Property	Units	Electrification Cost/Un	Boiler/Furnace Upgrade	Additional Cost to Electrify
James Creek	242	\$17,000.00	\$6,800.00	\$2,468,400.00
Highland Addition	116	\$17,000.00	\$6,800.00	\$1,183,200.00
Benning Terrace	274	\$17,000.00	\$6,800.00	\$2,794,800.00
Stoddert Terace	158	\$17,000.00	\$6,800.00	\$1,611,600.00
Fort Dupont	123	\$17,000.00	\$6,800.00	\$1,254,600.00
Woodland Terrace	234	\$17,000.00	\$6,800.00	\$2,386,800.00
The Villager	20	\$17,000.00	\$6,800.00	\$204,000.00
Montana Terrace	65	\$17,000.00	\$6,800.00	\$663,000.00
Elvans Road	20	\$17,000.00	\$6,800.00	\$204,000.00
Ontario	13	\$17,000.00	\$6,800.00	\$132,600.00
Lincoln Road	29	\$17,000.00	\$6,800.00	\$295,800.00
Potomac Gardens Walkups	144	\$17,000.00	\$6,800.00	\$1,468,800.00
Langston Terrace	274	\$17,000.00	\$6,800.00	\$2,794,800.00
Average				\$1,343,261.54
Total				\$17,462,400.00



Cost to convert gas rang	\$25,281,600.00		
Property Name	Unit Count	Gas Cooking Conversion Cost/Unit	Total Cost
JAMES CREEK	242	\$9,200.00	\$2,226,400.00
ONTARIO ROAD	13	\$9,200.00	\$119,600.00
LINCOLN ROAD	20	\$9,200.00	\$184,000.00
MONTANA TERRACE	65	\$9,200.00	\$598,000.00
CLARIDGE TOWERS	343	\$9,200.00	\$3,155,600.00
HORIZON HOUSE	124	\$9,200.00	\$1,140,800.00
JUDICIARY HOUSE	271	\$9,200.00	\$2,493,200.00
HARVARD TOWERS	193	\$9,200.00	\$1,775,600.00
REGENCY HOUSE	160	\$9,200.00	\$1,472,000.00
BENNING TERRACE	274	\$9,200.00	\$2,520,800.00
STODDERT TERRACE	158	\$9,200.00	\$1,453,600.00
FT DUPONT DWELLINGS	123	\$9,200.00	\$1,131,600.00
LANGSTON ADDITION	34	\$9,200.00	\$312,800.00
HOPKINS APTS	158	\$9,200.00	\$1,453,600.00
WOODLAND TERRACE	234	\$9,200.00	\$2,152,800.00
KNOX HILL	122	\$9,200.00	\$1,122,400.00
THE VILLAGER	20	\$9,200.00	\$184,000.00
SYPHAX GARDENS	174	\$9,200.00	\$1,600,800.00
ELVANS ROAD	20	\$9,200.00	\$184,000.00
Total Cost			\$25,281,600.00